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NARRATIVE

94

OF THE

ASTORIA

UNITED STATES'

EXPLORING EXPEDITION,

DURING THE YEARS

1838, 1839, 1840, 1841, 1842.



BY

CHARLES WILKES, U.S.N.

COMMANDER OF THE EXPEDITION,

MEMBER OF THE AMERICAN PHILOSOPHICAL SOCIETY, &c.

CONDENSED AND ABRIDGED.

LONDON:

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UNITED STATES

EXPLOSIONS

NEW YORK

CHARLES WILSON

CONDENSED AND

LONDON

WILLIAM AND SON

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ADVERTISEMENT.

CAPTAIN WILKES' Narrative of the United States' Exploring Expedition was printed at the expense of the American Government, in five imperial octavo volumes. It is a very beautifully illustrated book, but it is a dear one—too dear, indeed, for the large majority of readers interested in the subject, and too large in size for the cabin collection of many who would wish to give it a place in a seaman's library. The price of the American edition is eight guineas; the cost of the present condensation, containing the pith and marrow of the book, only *half-a-guinea*, or one-sixteenth part of that sum.

In condensing Captain Wilkes' Narrative, we have endeavoured to retain, in the first place, all that is new, or likely to be of use to seamen navigating the same seas; and in the second place, to retain all that is attractive to the general reader interested in the advance of Geography and Natural History. We have reduced in certain places the minute detail of the position of certain vessels composing the squadron, and omitted the large appendix of instructions to his officers, printed by Captain Wilkes in vindication of his own conduct. These instructions compose very nearly a fifth of the whole work. Freed in this way from all tedious matter, the book in its present shape will invite the perusal of many hitherto restricted by the expense of the previous publication, by its bulk, and by the minuteness of its detail.

It is much to be wished, that the United States' Government may equip before long a second expedition to the Antarctic Continent, to complete the discoveries made by Captain Wilkes, and detailed in the following pages. Expeditions of this description interest the world at large, and form in themselves a kind of debt due from the inmates of the New World to the inhabitants of the Old.

LONDON, 13th October, 1845.

INTRODUCTION*.

THE expedition, a narrative of the operations of which is now laid before the public, was the first, and is still the only one fitted out by national munificence for scientific objects, that has ever left our shores.

Whatever others are disposed to think, I am inclined to believe, that the originating, getting up, and getting off a first national expedition, is a work of no small difficulty, and this is much increased by the public thinking, talking of, and interfering too much with it. I felt this myself, although it did not cause me much difficulty. The very state of things that brought the expedition into general disrepute, was of great advantage to me, for I was left to perform my duties unmolested.

In the following narrative, it may perhaps be necessary to state, that although our time was limited to a few days at some of the places we visited, yet the number of officers and gentlemen engaged under my command, enabled me to have every thing worthy of notice examined. The result of our observations, I am satisfied, will give a faithful representation of the countries and islands, during the period of our visit.

I received every facility for obtaining information from our consuls, as well as from missionaries and American residents abroad. Some of them furnished me with interesting documents, connected with the past and present state of the countries where they reside, and procured from the different governments many valuable official papers. Indeed, the facilities met with have evinced a desire in all to further the undertaking with which I was charged.

To the Governor of New South Wales, Sir George Gipps, my acknowledgments are particularly due, for his generous liberality in ordering me to be furnished by the Colonial Secretary with all the documents published, not only at the time of our visit, but since. The latter have been kindly forwarded by our consul, J. H. Williams, Esq., to whom the expedition is also greatly indebted. From all these documents I have been enabled to draw much valuable information, which I hope will be interesting to the general reader, as well as useful to our interests abroad.

The reader who shall look to this narrative for my version of the developments which were elicited by the proceedings of the courts-martial, will be disappointed. I shall make no allusions that I can possibly avoid, to any of the subjects of a personal character that came before tribunals, after the return of the expedition; nor will the following narrative embrace any personal matters or difficulties that may have taken place with the officers, for the reason that I do not regard such details as relevant or interesting to the general reader. The attempts to throw impediments in my way were unsuccessful, and I fully believe, that from whatever motive they may have arisen, those who caused them are now desirous that they should be forgotten. My countrymen will see that my duties were sufficiently arduous without having other difficulties to contend with, and I have the gratification of feeling that those duties have been performed, and the results fairly obtained.

The performance of these duties is the best refutation that can be given to the many mis-statements that have been circulated to the prejudice of the expedition, but which, I trust, will now be set at rest. I have never had any personal feeling in the matter, except that which naturally arises from the wish to overcome all impediments, of whatever nature they might be. I can, therefore, have no desire but to give the true version of every circumstance of a public nature that may concern the expedition, and I hope that I shall be able to do it with impartiality and justice, touching as lightly as possible on the faults of individuals, and bestowing praise wherever it is justly due.

I was called upon, in a few cases, to exercise the means in my possession to punish aggressions. Yet my aim has been throughout the cruise, so to conduct the duties devolving upon the squadron, that it would carry with it the force of moral principle. All the regulations and operations were made to tend to this end. I considered this as one of my first duties, and in it I have been well supported by Captain Hudson and Lieutenant-Commandant Ringgold, and by most of the officers of the expedition. I feel great satisfaction in having received testimonials from the different missionaries, that my course has been fully appreciated by them. Indeed, I have reason to rejoice that I have been enabled to carry the moral influence of our country to every quarter of the globe where our flag has waved, and I trust that the expedition will compare advantageously with any other that has preceded it, in its moral and correct deportment.

CHARLES WILKES.

WASHINGTON CITY, November, 1844.

* Prefixed to the edition in five volumes, Imperial 8vo., printed at Philadelphia in 1845.

LIST OF OFFICERS AND MEN

ATTACHED TO

THE UNITED STATES' EXPLORING EXPEDITION.

UNITED STATES' SHIP VINCENNES.

CHARLES WILKES, Esq.,
THOMAS T. CRAVEN,
OVERTON CARR,
ROBERT E. JOHNSON,

JAMES ALDEN,
WILLIAM L. MAURY,
JAMES H. NORTH,
EDWARD GILCHRIST,
R. R. WALDRON,
J. L. ELLIOTT,
J. L. FOX,
J. S. WHITTLE,
GEORGE M. TOTTEN,
WILLIAM REYNOLDS,

WILLIAM MAY,

JOSEPH P. SANDFORD,

GEORGE W. CLARK,
SAMUEL ELLIOTT,
WILLIAM SMITH,
WASHINGTON BRIGHT,
WILLIAM M. LAUGHTON,
SAMUEL N. HAWKINS,
BENJ. VANDERFORD,
R. P. ROBINSON,
JOHN G. WILLIAMSON,

Commanding exploring expedition.

Lieutenant.

Lieutenant.

Lieutenant.

Lieutenant.

Lieutenant.

Acting Master.

Acting Surgeon.

Purser.

Chaplain.

Assistant Surgeon.

Assistant Surgeon.

Passed Midshipman.

Passed Midshipman.

Passed Midshipman.

Passed Midshipman.

Passed Midshipman.

Passed Midshipman.

Passed Midshipman.

Passed Midshipman.

Passed Midshipman.

Passed Midshipman.

Passed Midshipman.

Passed Midshipman.

Passed Midshipman.

Passed Midshipman.

Passed Midshipman.

Left at Valparaiso, June 6th, 1839, to take command of the Sea-Gull.
Took command of brig Oregon, at San Francisco, October, 1841.
Commanded Sea-Gull on her southern cruise, detached at Honolulu, November, 1841.

Joined brig Porpoise at San Francisco, October, 1841.
Joined Peacock at Orange Bay, and Porpoise at Callao.
Joined Porpoise at Callao.
Detached at Sydney, March, 1840.

Detached at San Francisco, October, 1841.
Joined Porpoise at San Francisco, October, 1841.
Joined Peacock at Honolulu, and Vincennes again at San Francisco.
Joined Porpoise at Callao, and Vincennes at Honolulu.
Joined Peacock, 1839, and Flying-Fish at Honolulu, 1840, and Porpoise at Singapore.
Joined Flying-Fish on a cruise south, 1839-40, and Vincennes again, May, 1840.
Joined Porpoise at Tahiti, schooner Flying-Fish at San Francisco, and Porpoise at Singapore.
Joined Peacock at Tahiti, and Vincennes again at San Francisco.

Joined Relief at Callao.
Joined Relief at Callao.

Died, April, 1842.

SCIENTIFIC CORPS.

CHARLES PICKERING,
JOSEPH DRAYTON,
J. D. BRACKENRIDGE,
JOHN G. BROWN,
JOHN W. W. DYES,
JOSEPH P. COUTHOUX,

Naturalist.

Artist.

Assistant Botanist.

Mathematical Instrument Maker.

Assistant Taxidermist.

Naturalist.

Left at Sydney, and detached at Honolulu, November, 1840.

UNITED STATES' SHIP PEACOCK.

WRECKED JULY 18TH, 1841.

WILLIAM L. HUDSON, Esq.,
SAMUEL P. LEE,
W. M. WALKER,

GEORGE F. EMMONS,
O. H. PERRY,
THOMAS A. BUDD,
J. F. SICKLES,
WILLIAM SPIEDEN,
SILAS HOLMES,
JAMES B. LEWIS,
HENRY GANSEVOORT,
HENRY ELD,
GEORGE W. HARRISON,

WILKES HENRY,
WILLIAM H. HUDSON,
FREDERICK D. STUART,
THOMAS G. BELL,
JOHN D. ANDERSON,
JONAS DIBBLE,
J. D. FREEMAN,
WILLIAM H. INSLEY,

Commanding.

Lieutenant.

Lieutenant.

Lieutenant.

Lieutenant.

Acting Master.

Surgeon.

Purser.

Assistant Surgeon.

Passed Midshipman.

Passed Midshipman.

Passed Midshipman.

Passed Midshipman.

Passed Midshipman.

Passed Midshipman.

Passed Midshipman.

Passed Midshipman.

Passed Midshipman.

Passed Midshipman.

Passed Midshipman.

Passed Midshipman.

Joined Vincennes at San Francisco.

Detached at Orange Bay, February, 1839.

Commanded Flying-Fish first cruise, joined Porpoise at Columbia River, and Vincennes at San Francisco.

Joined Vincennes at San Francisco.

Joined Vincennes at San Francisco.

Joined Vincennes at Feejee.

Joined Relief at Callao.

Joined Oregon at Columbia River.

Joined Porpoise at Sydney, and Oregon at San Francisco.

Joined Flying-Fish at Feejee, returned home from Oahu sick.

Detached at Callao, 1839.

Joined Vincennes at Feejee.

Joined Flying-Fish on cruise south, Peacock at Feejee, and Oregon at Columbia River.

Joined Vincennes at Callao, killed July 24th, 1840, at Malolo.

Joined Vincennes at Columbia River.

Joined Porpoise at Columbia River, and Vincennes at San Francisco.

Joined Porpoise at Columbia River, and Oregon at San Francisco.

Detached at Callao.

Joined Oregon at Columbia River.

Joined Porpoise at Columbia River

Detached at Callao.

LIST OF OFFICERS AND MEN.

SCIENTIFIC CORPS.

JAMES D. DANA,
T. R. PEALE,
HORATIO HALE,
F. L. DAVENPORT,

Mineralogist.
Naturalist.
Philologist.
Interpreter.

Joined Vincennes at San Francisco.
Joined Vincennes at San Francisco.
Joined Vincennes at New Zealand, Peacock at Honolulu, and was
left at Oregon to cross the country.
Detached at Rio.

UNITED STATES' SHIP RELIEF.

SENT HOME FROM CALLAO, BY WAY OF SANDWICH ISLANDS AND SYDNEY.

A. K. LONG,
R. F. PINKNEY,
A. L. CASE,
JOSEPH A. UNDERWOOD,
GEORGE T. SINCLAIR,
J. C. PALMER,
ALONZO B. DAVIS,
THOMAS W. CUMMINGS,
JAMES L. BLAIR,
JAMES R. HOWISON,
J. BLACK,
THOMAS LEWIS,

Lieutenant-Commandant.
Lieutenant.
Lieutenant.
Lieutenant.
Acting Master.
Acting Surgeon.
Passed Midshipman.
Passed Midshipman.
Midshipman.
Captain's Clerk.
Boatswain.
Gunner.

Joined Peacock at Orange Bay, Flying-Fish at Callao, and detached
at Honolulu, 1840.
Joined Vincennes at Callao.
Joined Vincennes at Callao, and killed at Malolo, July 24th, 1840.
Joined Porpoise at Callao; Commander Flying-Fish at Feejee; joined
Porpoise again at Honolulu, November, 1840.
Joined Peacock at Callao, and Oregon at Columbia River, and Vin-
cennes at San Francisco.
Joined Peacock at Callao, and Vincennes at Columbia River, and
Oregon at San Francisco.
Left sick at Rio.
Joined Peacock at Rio, schooner Flying-Fish at Columbia River,
and Vincennes at Honolulu.
Joined Vincennes at Callao.
Joined Peacock at Callao, and Oregon at Columbia River.

SCIENTIFIC CORPS.

WILLIAM RICH,
ALFRED T. AGATE,

Botanist.
Artlst.

Joined Peacock at Callao, and Vincennes at San Francisco.
Joined Peacock at Callao, and Vincennes at San Francisco.

UNITED STATES' BRIG PORPOISE.

CADWALADER RINGGOLD,
M. G. L. CLAIBORNE,
H. J. HARTSTEIN,
JOHN B. DALE,
A. S. BALDWIN,
C. F. B. GUILLOU,
SIMON F. BLUNT,
GEORGE W. COLVOCORESSIS,
THOMAS W. WALDRON,
O. NELSON,
AMOS CHICK,
JOHN JONES,
WILLIAM H. MORSE,
JOHN FROST,

Lieutenant-Commandant.
Lieutenant.
Lieutenant.
Lieutenant.
Acting Master.
Assistant Surgeon.
Passed Midshipman.
Passed Midshipman.
Captain's Clerk.
Boatswain.
Carpenter.
Sailmaker.
Purser's Steward.
Boatswain.

Joined Relief at Orange Bay.
Joined Relief at Callao.
Joined Relief at Callao.
Joined Peacock at Callao, and Oregon at Columbia River.
Joined Peacock at Sydney, Flying-Fish at Columbia River, and
detached at Honolulu, November, 1841.
Joined Vincennes at Orange Bay, and left sick at Honolulu, in
April, 1841.
Joined Peacock at Rio, Vincennes at Feejee, and Oregon at San
Francisco.

Detached at Rio.
Joined Vincennes at Callao.
Detached at Callao; joined Relief.

TENDER SEA-GULL

LOST ABOUT MAY 1ST, 1839.

JAMES W. E. REID,
FREDERICK A. BACON,
ISAAC PERCIVAL,

Passed Midshipman, Commandant.
Passed Midshipman.
Pilot.

Joined Relief at Callao.

TENDER FLYING-FISH.

SOLD AT SINGAPORE.

SAMUEL R. KNOX,
GEORGE W. HAMMERSLY,
RICHARD ELLICE,
H. A. CLEMONS,
EGBERT THOMPSON,
A. M. CESNEY,
E. H. DE HAVEN,
JAMES S. POWER,

Commandant.
Midshipman.
Ac. Master's Mate.
Midshipman.
Midshipman.
Master's Mate.
Acting Master.
Purser's Steward.

Commanding schooner most of the cruise: joined Vincennes at Sin-
gapore.
Joined Peacock at Callao, and Vincennes at Feejee.
Detached; joined Relief at Rio.
Joined the Vincennes at Rio; detached at Callao.
Joined Vincennes at Rio, Peacock at Feejee, and Vincennes again
at Columbia River.
Detached at Honolulu.
Joined Vincennes at Callao, Peacock at Feejee, and Oregon at
Columbia River.
Joined Peacock at Callao, and Oregon at Columbia River.

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NARRATIVE

OF THE

UNITED STATES' EXPLORING EXPEDITION.

CHAPTER I.

MADEIRA.

DEPARTURE FROM THE UNITED STATES—VOYAGE TO MADEIRA—ARRIVAL AT FUNCHAL—APPEARANCE OF MADEIRA FROM THE SEA—LANDING AT FUNCHAL—VISIT TO THE CIVIL AND MILITARY GOVERNORS—STREETS, AND MODE OF TRANSPORTATION—CRIMINALS AND PRISONS—VILLA OF CARVALHAL—CONVENT—RIDES IN MADEIRA—CURRAL—EXCURSION TOWARDS THE EAST END OF THE ISLAND—POPULATION OF MADEIRA—WINE—GOVERNMENT—CHARACTER OF THE INHABITANTS—DRESS—DWELLINGS—MODE OF TRAVELLING—EMPLOYMENTS OF THE PEOPLE—WINE-MAKING—LOWER CLASSES—ASCENT OF PICO RUIVO—NATURAL HISTORY—QUINTA OF MR. BEAN—DEPARTURE FROM MADEIRA.

THE command of the Exploring Expedition devolved upon me, by orders from the Hon. Mahlon Dickerson, then secretary of the navy, on the 20th of March, 1838. On my arrival at Norfolk, I found every thing in a state of forwardness, and the squadrons in Hampton Roads, whither they had dropped down on the 8th of August.

On the 17th of August I received my sailing instructions*, and final orders to put to sea the moment I was ready. The signal was accordingly made that the squadron was under sailing orders, and at 11 a.m. all hands were called to muster, and divine service was performed. The day was beautiful, the sea smooth, and the wind light. I shall never forget the impressions that crowded on me during that day in the hours of service. We were admonished in the discourse to repose confidence in the aid and protection of Him whom all hands had been called to worship, and the admonition was well calculated to do us good.

Our squadron was composed of the following vessels. The Vincennes, a sloop of war of 780 tons, originally single-decked, but in consequence of the intended cruise, a light deck was put on her for the protection of the men and to afford more room. The accommodations thus became those of a small frigate.

The Peacock, a sloop of war of 650 tons, originally built with a deck like that of the Vincennes. She had made two cruises previous to her sailing in 1838.

The Porpoise, a gun-brig of two-and-thirty tons; the tender Sea-Gull of 110 tons; the tender Flying-Fish of 96 tons; and the Relief, a new vessel, originally intended as a store-ship for the navy. She was built for carrying, and her slow rate of sailing made her ill adapted for the cruise.

Orders were now given to rendezvous, in case of separation, at Madeira. It was soon found, in the trial of the sailing qualities of the vessels, that the Relief was unsuited to act with the rest without great detention, and after four days I determined to part company with her, giving her orders to proceed to the Cape de Verdes.

The novelty of our situation was quite enough to interest all; free communications were had, and endeavours were made to excite a general interest in all the objects that were passing about us. It was amusing to see all entering into the novel occupation of dissecting the fish taken, and to hear scientific names bandied about between Jack and his shipmates.

On the 25th of August our winds became favourable, and we were enabled to lay our course towards Madeira. I continued to keep the direction of the Gulf Stream towards the Western Islands. We felt its influence until we reached the longitude of 48° W., and found it to set for the last few days to the northward of east. The winds had been light and the sea smooth, indicating no other impulse than the flow of the stream. The temperature gradually decreased from 83° to 75°.

On the night of the 26th we parted company with the Peacock and Flying-Fish in a squall, and did not again meet them until we reached Madeira. The 5th of September, being near the reported shoal of St. Anne, I determined to pass over its position.

On the 6th we passed over it, the sea was smooth, the horizon clear, and the day beautiful. At 8 a.m. the look-out cried out, "Rocks or a wreck on the starboard bow!" which at once created an excitement on board. We stood for it. It had at first every appearance of a rock, then that of a wreck with the masts gone. It proved, however, to be a large tree of cotton-wood, one

* Dated 11th August, 1838. See Appendix A.

hundred and twenty feet in length, and fourteen feet in circumference at the height of five feet above the roots. It had been a long time in the water, was full of barnacles, and much eaten by the teredo navalis. Great quantities of fish were about it, consisting of dolphins, sharks, &c. We did not, however, succeed in taking any. In rough weather it might easily have been mistaken for a rock, particularly if passed in twilight, or at night.

In consequence of the wind being from the southward and westward, I was compelled, after making the Peak of Pico, to go to the northward of St. Michael's. I am satisfied, however, it is much better to keep to the southward, as the wind will be found more steady and stronger. Besides, the current, at that season of the year, sets to the westward among the islands.

As we passed St. Michael's, we amused ourselves by a view, through our glasses, of its villas, groves, and cultivated fields.

On the night of the 13th of September we laid by, just after passing the north end of St. Michael's, in order to examine the position of the Tullock Reef by daylight. We passed within a mile and a half of its reported position, but saw nothing of it, although the sea was running sufficiently high to have made a heavy break on it, if it did exist.

On the 15th, as we were making sail, George Porter, one of our maintop-men, in losing the top-gallant sail, was caught by the buntline, and dragged over the yard, where he was seen to hang, as it were quite lifeless, swinging to and fro by the neck.

On the alarm being given, two men ran aloft to his assistance. It now became doubtful on deck whether they would not be all dragged over by the weight of his body, until several others gave assistance and relieved them. It caused a breathless anxiety to us all to see a fellow-being in the momentary expectation that he would be dashed to the deck. He was fortunately rescued and brought below yet living. Here he speedily came to his senses, and recollecting that the drum had rolled to grog just before his accident, he, sailor-like, asked for his portion of it. It was truly a providential escape. This young man died on our way home, in the China seas, of an inflammatory fever.

On the 16th we made the island of Madeira, and having a strong westerly wind, I determined to pass to Funchal, on its southern side. This may be done at this season, but vessels bound to that port usually prefer going round the eastern point of the island. When off the western point of Madeira we experienced a very long heavy swell, which gave me an opportunity of trying the velocity of the waves, by noting the time the same wave was passing between the vessels. The result gave twenty-three miles per hour, but I was not altogether satisfied with it. It was difficult to measure the correct angle subtended by the Porpoise's masts for the distance, on account of the motion of both vessels. The measurement of the height of the waves I found still more difficult, and the results varied too much to place confidence in them, principally owing to each succeeding swell or wave being less than the preceding one. The different observations gave from twenty-five to fourteen feet; the width of the wave, from the same causes, was equally variable, and each successive result varied from that which preceded it.

Before sunset we cast anchor in company with the Porpoise and Sea-Gull, and were the next morning joined by the Peacock and Flying-Fish.

Shortly after coming to anchor, we were boarded by the health officer, with the captain of the port, who, on being assured of our good health, gave us permission to land. The United States' consul, Henry John Burden, esq., also came on board, and kindly offered us all the attention that lay in his power.

The first appearance of Madeira did not come up to the idea we had formed of its beauties from the glowing description of travellers. It exhibited nothing to the distant view but a bare and broken rock, of huge dimensions, which, though grand and imposing, is peculiarly dark and gloomy, and it was not until we had made our way close under the land, that we could discover the green patches which are every where scattered over its dark red soil, even to the tops of the highest peaks.

The mountain verdure was afterwards discovered to be owing to groves of heath and broom, which grow to an extraordinary height, aspiring to the stature of forest trees. In addition to these groves, the terraced acclivities, covered with a luxuriant tropical vegetation, change on a closer approach its distant barren aspect into one of extreme beauty and fertility.

The most striking peculiarity in the mountain scenery is the jagged outline of the ridge, the rudely-shaped towers and sharp pyramids of rock, which appear elevated on the tops and sides of the highest peaks as well as on the lower elevations, and the deep precipitous gorges, which cut through the highest mountains almost to their very base.

The shores of the island are mostly lofty cliffs, occasionally facing the water with a perpendicular front one or two thousand feet in height. The cliffs are interrupted by a few small bays, where a richly cultivated valley approaches the water between abrupt precipices, or surrounded by an amphitheatre of rugged hills. These narrow bays are the sites of the villages of Madeira.

As we sailed along from its western end, we occasionally saw, in these quiet and peaceful situations, small white-walled villages, each with its little church at the outlet of the gorges. We were particularly struck with that of the Camera de Lobos, a few miles to the westward of Santa Cruz hill. This is the largest, and is the most interesting of any, from its having been the first point settled by Europeans. The high precipices were new to us Americans: so different from what we are accustomed to in the United States. The scene was still more striking, and our attention was more forcibly arrested, when passing under cliffs of some sixteen hundred feet above us. We were so near them that the sound of the surf was distinctly heard. The whole effect of the view was much heightened by a glowing sunset in one of the finest climates in the world.

Off the eastern cape of the island, many isolated rocks were seen separated from the land, with bold, abrupt sides and broken outlines. The character of these rocks is remarkable; they stand quite detached from the adjoining cliffs, and some of them rise to a great height in a slender form, with extremely rugged surfaces, and broken edges. Through some the waters have worn arched ways of large dimensions, which afford a passage for the breaking

surf, and would seem to threaten ere long their destruction.

Similar needle-form rocks are seen off the northern Deserta, an island lying some miles east of Madeira. One of them is often mistaken for a ship under sail, to which when first seen it has a considerable resemblance. It stands like a slender broken column, several hundred feet in height, on a base scarcely larger than its summit.

Funchal has a very pleasing appearance from the sea, and its situation, in a kind of amphitheatre formed by the mountains, adds to its beauty. The contrast of the white buildings and villas with the green mountains, forms a picture which is much heightened by the bold quadrangular Loo Rock, with its embattled summit commanding the harbour in the foreground.

The island throughout is rough and mountainous, but the steepes are clothed with rich and luxuriant verdure. Terraces are visible on every side, and every spot that the ingenuity of man could make available has been apparently turned to advantage, and is diligently cultivated. These spots form an interesting scene, particularly when contrasted with the broken and wild background, with the white cottages clustered at the sea-shore, and gradually extending themselves upwards until the eye rests on the highest and most striking building, that of the convent of Nostra Señora de Monte.

Through the western half of the island runs a central ridge, about five thousand feet high, on which is an extensive plain, called Paul de Serra, which is mostly overgrown, and is used especially for breeding mules and horses. The eastern portion of the island, though quite elevated, is less so than the western.

The valleys usually contain a strip of land of extreme fertility, through which winds the bed of a streamlet, that becomes a mountain torrent in the rainy seasons, but is nearly or quite dry in summer.

The landing at Funchal is on a stony beach, and is accompanied with some little difficulty, partly on account of the surf, but more from the noise, confusion, and uproar made by the native boatmen in their efforts to drag their boat up on the beach. This operation they however understand, and are well accustomed to, and those who desire to land dry, will be wise to employ them.

On the 17th, we paid our respects, with a large party of officers, to the civil governor the baron de Lordello, field-marshal in the army, and administrator-general of the province of Madeira and Porto Santo; and also to the military governor Jose Teixeira Rebello, colonel in the army, and commandant of the district.

His excellency baron Lordello resides in the government house or palace, which is a large quadrangular building, occupied in part as barracks. His suit of apartments fronts the bay, and enjoys a beautiful view of it; they also have the enjoyment of the inbat or sea-breeze. They are very large, and but meagerly furnished. Around the large anteroom are hung the portraits of all the civil, ecclesiastical, and military governors, which form an imposing array of hard outline, stiff figures and faces, with a variety of amusing costume. Those of later years which have been hung up, are not calculated to give very

exalted ideas of the standing of the present Portuguese school of portrait painting.

His excellency the baron Lordello received us very courteously. Our audience, however, was extremely formal; the whole furniture and appearance of the room served to make it so. We all found it difficult to school ourselves to ceremonies, having been ushered as we were through dilapidated and impoverished courts and vestibules. His excellency the baron speaks English remarkably well, which I understood he had acquired while acting as interpreter to the British staff in Portugal, during the Peninsular war. He had been no more than a week in charge of the government, having just arrived from Portugal. After a few monosyllabic questions and answers we took our leave, and he did us the honour to see us through the anteroom to the hall of entrance, where we parted with many bows.

Our next visit was to the military governor, Señor Rebello, who occupied a small apartment at the opposite end of the building. This was not large enough to accommodate us all, and chairs were wanting for many. The manner and ease of the occupant made full amends. Ceremony and form were laid aside; he seemed to enter warmly into our plans and pleasures, and evinced a great desire to do us service.

The streets of the town are very narrow, without sidewalks, and to our view like alleys, but their narrowness produces no inconvenience. They are well paved, and wheel-carriages are unknown. The only vehicle, if so it may be called, is a sledge, of some six feet in length, about twenty inches wide, and only six or eight inches high, on which are transported the pipes of wine. Two strips of hard wood are fastened together for runners.

This sledge is dragged by two very small oxen, and slips easily on the pavement, which is occasionally wet with a cloth. It is no doubt the best mode of transportation in Funchal, for their wine, on account of the great steepness of their streets. Smaller burthens are transported on men's shoulders, or in hampers and baskets on the backs of donkeys.

I was surprised to learn that all misdemeanours are referred for trial to Portugal, and that persons having committed small crimes are kept for years without any disposition being made of them by those in authority. They are maintained at the expense of the complainant, consequently crime is scarcely noticed or complained of. On the one hand it makes the punishment very severe, and on the other, persons are inclined to take the law into their own hands against petty thefts. It is impossible to avoid many painful sights in passing the prisons. Caps on sticks are thrust through the iron gratings, and requests are made for *alma*, first in beseeching tones, and afterwards, if nothing is given, one is pained with hearing cries of execration. The occupants are in keeping with the premises, and did not fail to excite both our commiseration and disgust.

The rides in Madeira are beautiful. The roads are well made, easily and safely travelled on a Madeira pony, with a pony-boy or burroquero. One is at a loss to which to impute the most strength of mind and endurance, the pony or the boy. These boys keep constantly near the rider, at

times holding on to the tail of the pony, then bestowing repeated blows with their long sticks, and ever and anon urging him on with their singular tones of voice, so that the rider is compelled to allow himself to be carried along, contented with passing safely over so novel and (to him) apparently so impassable a roadway.

On proceeding out of Funchal, fruits, flowers, and vegetables seem crowding upon the sight; in the lower portions, groves of orange and lemon trees are mingled with the vineyards, the trees are loaded with fruit; then, as one mounts higher, bananas, figs, pomegranates, &c., are seen, and again, still higher, the fruits of the tropics are interspersed with those of the temperate zone, viz., apples, currants, pears, and peaches, while the ground is covered with melons, tomatoes, egg-plant, &c. Farther beyond, the highest point of cultivation is reached, where the potato alone flourishes. Then the whole lower portion is spread before the eye. Vineyards, occupying every spot that is susceptible of improvement; and one rides through paths hedged in with geraniums, roses, myrtles, and hydrangeas. These plants, which we had been accustomed to consider as the inhabitants of our parlours and green-houses, are here met with in gigantic forms, and as different from our small, sickly specimens as can well be imagined.

Every one who visits Madeira should see the Curral. It is a very remarkable spot, and it is difficult, if not impossible, to give an idea of its beauty and grandeur. This place is approached by the usual ascent from Funchal, through the narrow roads, or paths hedged with roses, &c., the view gradually extending beneath, over the terraced vineyards. Just before reaching it you mount a small ascent; you are then on the summit or edge of the Curral, and the whole scene suddenly bursts upon you. The eye descends to the depth of two thousand feet, into the immense chasm below, and wanders over the ragged and broken outline of the many peaks that rise from its very bottom; then upwards, following the gray precipitous rocks, till their summits are lost in the clouds, which are passing fitfully across it, occasionally permitting the sunbeams to glance to its very bottom. The whole looks more like enchantment than reality. The shape of the Curral and its perpendicular sides give the idea rather of a gorge than of a crater.

The islands of Madeira and Porto Santo, under the new constitution, promulgated in 1836, were included in one district, called "Districto-administrativo do Funchal." It contains ten councils, in which are forty-five parishes. The population, according to the census taken in 1836, amounted to 115,447 souls. The English population to 103 families, numbering 324 souls.

The revenue of the island is stated to be about 210,000 dollars per annum. That portion which is derived from the customs, is about one-half, or 110,000 dollars. The remainder is from taxes and tithes.

There are about five thousand proprietors of the soil, of whom no more than six hundred and fifty live on their rents; and there are about four hundred who receive government salaries.

Mendicants are numerous, and one is much tormented with them from the very moment of landing. It is surprising to find them so importunate in so

fine an island, and where the necessities of life ought to abound.

Wine is the staple commodity: the produce during the year 1837 was 14,150 pipes. The export the year previous to our visit amounted to 8435 pipes, of which about 3800 pipes went to the United States. The inhabitants of Madeira are much alive and justly jealous of the reputation of their wines, which are generally the engrossing topic of conversation. An amusing excitement existed during our visit. A London paper (The Times) had asserted, that foreign wine had frequently been introduced into Madeira, and afterwards exported as the genuine article to the United States in particular; and what gave more force to the story, it was stated as a fact, that 70 pipes had lately been entered, at the expense of 1000 dollars, and remanufactured. Every body was up in arms. The commercial association of Funchal passed resolutions denouncing the publication in strong terms, as designed by certain interested persons to injure the reputation of the wine of Madeira. So strict are the laws to prevent frauds, that even genuine Madeira, after being once shipped, cannot be returned to the island. I heard, however, of an attempt, and but one, to smuggle in Tenerife and Fayal wines, which was discovered. The casks were broken, the wine destroyed, the boats confiscated, and the smuggler condemned to be transported to the coast of Africa.

The people are industrious, sober, and civil, and although ignorant, I should think happy. There is little, if any, mixed blood among them. They are of the old Arabian stock. Free negroes are seen. Dark hair, eyes, and complexion, are most common; but much diversity in form and feature, and in the colour of the hair, exists. The character of the features of the inhabitants is usually rather a broad face, high cheek bones, and pointed nose, full lips, good teeth, and retreating chin. The men are very muscular, rather above the middle height, strongly built, and capable of enduring great fatigue. We all agreed that the women were particularly ugly, which is to be imputed in part to the hard labour required of them. The two sexes do not appear to belong to the same race.

The men of the lower order are dressed in a kind of loose trousers (cuecas), descending as far as the knee, with a shirt or jacket of a gaudy colour. Both sexes wear a kind of cap (carapuca), of very small dimensions, tied under the chin. Its use is not readily conceived, as it is only a few inches in diameter at its base, and terminates in a conical top, like an inverted funnel.

The women wear bodices, with short petticoats of a variety of colours, in stripes. They have usually shoes and stockings, but they generally go barefooted, with these articles tied in a small bundle, to be put on when they wish to appear fine. The children are poorly clad, have but one garment, and that dirty.

The habitations of the lower order would be called huts in our country. They are composed of walls of stone, about five or six feet high, with a roof rising on all sides to a central pole; are thatched with straw or broom, and contain only one room. The only aperture for light and smoke is the door. There is but little necessity for chimneys, as fire is seldom required. It is said that in the northern part of the island, some of the pea-

sants make their habitation in caves or excavations on the hill-side.

In the town of Funchal there are many elegant establishments, and much luxury among the higher classes, but the poorer classes are lodged miserably. The houses are generally of one story, of which the exterior is well kept, being neatly white-washed; but the interior is any thing but comfortable. They have but one entrance. The floors are paved with round stones, and the walls are of rough stone, presenting no better an appearance than our wood-cellars. The furniture is scanty, and of the coarsest kind.

Travelling is performed in sedan-chairs. This mode is always considered the safest for ladies, particularly in crossing the mountains. Horses and mules are seldom used. On leaving Funchal for the country, it is one continued ascent between high stone walls, these forming abutments to the terraces, which are covered with vines, and afford protection from the sun. After reaching the hills, one enjoys a delightful view of the beautiful gardens. The road-sides are lined throughout with flowers (to us those of the green-house), among them fuchsias, digitalis, rose geraniums, punica granata, rosa indica coccinea, hydrangea hortensis, mixed with box-trees, myrtles, &c.

The valleys are covered with the belladonna lily, and the mountain-passes cannot be compared to any thing more appropriate than to a rich flower-garden left to grow wild. Added to all this, a climate which resembles our finest spring weather.

Such of the peasantry as do not gain a subsistence in the vineyards have usually a small patch of ground which they cultivate, raising grain, corn, potatoes, and the taro (*arum esculentum*), in quantities barely sufficient to eke out a scanty living. The cultivation is commonly performed by hand, although a plough of very simple construction is sometimes used. Many of the peasantry are employed as carriers, and one is much struck by their numbers when entering Funchal early in the morning, with sheep-skins filled with wine on their shoulders, that look at a distance more like the live animal than a filled skin. These skins are preserved as entire as possible, even the legs of the animal being retained. They are generally kept steady by a band that passes over the forehead, which supports a great part of the weight. About twenty-five gallons, weighing more than two hundred pounds, is a load. They move rapidly, and carry this load five miles for a mere trifle. To us, one of the most remarkable features in the population was to see a female not only thus employed, but a stout mountain lass trudging up a steep path with ease, under a load that would have staggered one of our labourers, even for a short distance.

The manner of expressing the juice I have now where seen particularly described; and although a description of it may not add a relish to the cup, yet it will show the manufacture as conducted according to the old custom, at the present day. A friend of our consul was obliging enough to show us his works, and the machinery for expressing the juice from the grape. It was in a rude sort of shed. On our approach we heard a sort of song, with a continued thumping, and on entering saw six men stamping violently in a vat of six feet

square by two feet deep, three on each side of a huge lever beam, their legs bare up to the thighs. On our entrance they redoubled their exertions till the perspiration fairly poured from them; the vat had been filled with grapes, and by their exertions we were enabled to see the whole process. After the grapes had been sufficiently stamped, and the men's legs well scraped, the pulp was made into the shape of a large bee-hive, a rope made of the young twigs of the vine being wound around it. The lever was then used, which has a large stone or rock attached to it by a screw. The juice flows off, and is received in tubs. The produce of the press is on an average about fifty gallons daily. Each gallon requires about ten bushels of grapes. The taste is very much like sweet cider. The process is any thing but pleasing, and endeavours have been made by English residents to substitute machinery, but the prejudices, vexations, and difficulties experienced have caused them to give up the attempt. The general average is from one to three pipes of wine per acre annually.

The south side of Madeira, as is well known, although not the most fertile, produces the finest wines. Every point which can be cultivated successfully is attended to, and earth is brought to increase the soil from other parts. The kinds of grapes are various, and the wines manufactured as numerous. The common Madeira is obtained from a mixture of Bual, Verdelho, and Negro Molle grapes; the Malmsey and Serrial from grapes of the same name. There is a great difference in the spots and peculiar exposure where the vine grows; and different kinds of wine are produced, according to the state of maturity to which the grape is allowed to arrive at before being gathered. After being expressed, it is put into casks, undergoes the process of fermentation, is clarified with gypsum or isinglass, and a small portion of brandy is added, two or three gallons to the pipe.

The deportment of the lower classes is a mixture of politeness and servility. They invariably noticed us in passing by taking off the cap; and on receiving any thing, kissed their hands, or made some other respectful salutation.

The language spoken in Madeira is Portuguese, but with a rapid utterance, or rather, clipping or abbreviating of their words and expressions.

The ignorance of the common people seems great. Few can read, and still fewer write. It is said they are acquainted with no more than three coins, all of which are Spanish, namely, dollars, pistareens, and bits, and that many kinds of Portuguese coins current at Lisbon will not pass in Madeira. The want of a small description of money is much felt.

I directed a party of officers to make an excursion to the top of Pico Ruivo, in order to ascertain its height, and that of the several points on their way up. They remained four hours on the summit, during which time simultaneous observations were made at the consul's house by lieutenant Carr and myself. They ascended by the Santa Anna road, which is the only one now said to be practicable. Ponta d'Empeño, the highest point of cultivation, was found to be four thousand one hundred feet above the sea.

The magnetical observations for dip and intensity were also made, and the longitude by chrono-

meter was found to be $16^{\circ} 54' 11''$ W. Latitude by observation, $32^{\circ} 38' 11''$ N.

The markets are well supplied with meat, poultry, fish, and all kinds of vegetables.

The bat noticed by Bowdich was the only one of the mammalia seen in a wild state. Of birds, two species of hawks, the linnet, the canary, the goldfinch, the yellow wagtail, and the swift, were all that were seen. Sea-fish are abundant; but not a single trace of a fresh-water fish was seen or found in the streams. Many specimens of crustacea, insects, and mollusca were added to our collections.

The ride to the Quinta of Mr. Bean at Comancha is one of the prettiest the island affords. It is towards the east end, and some eight or ten miles from the town of Funchal. For variety of scenery and the beauty of its grounds it is not exceeded by any on the island, and it gives a good idea of the effect of English taste when applied to the scenery and fine climate of Madeira. The road to it is the same that has been before described, passing through the gorges and around the different spurs, which gives great variety to it, and presents many fine views. Having a note of introduction from our consul, we stopped at Mr. Bean's gate, and sent the servant in, who returned, informing us that Mr. Bean was not at home, but a kind invitation to enter was sent to us from his lady. We did so,

riding through hedges of fuchsias and myrtles twelve feet high, when a beautiful little cottage on a small level spot burst suddenly upon our view, with its verandahs embosomed in creeping vines; and from the notes of various kinds of birds, one could almost have fancied oneself in an aviary. Several small lakes were partially seen, their dimensions being ingeniously hid from view. On one of them was seen a tiny fleet safely moored, on another waterfalls, &c.; the banks of others were surrounded with aquatic plants, among which was the calla Ethiopica in full bloom. Then again we were struck with the dahlias, geraniums, roses, and jasmines, and the varieties of trees and shrubs from the tropics, besides willows, oaks, elms, &c., that were familiar to us. A view through the trees down the gorge to the distant ocean was beautiful, bringing before us all the bold scenery of Madeira: truly it was an enchanting spot. The grounds are extensive, and laid out with great taste, and each spot appeared in keeping with the whole. The hill behind the house was found by the symposiumeter to be two thousand and ninety-eight feet above the level of the sea.

After a stay of a week, we had made all our repairs and arrangements which were necessary in consequence of our defective outfits, recruited the officers and men, and prepared for our departure.

CHAPTER II.

CAPE DE VERDES—RIO DE JANEIRO.

SQUADRON SAILS FROM MADEIRA—CURRENTS—SEARCH FOR SHOALS AND VIGIAS—ARRIVAL AT ST. JAGO—APPEARANCE OF THE ISLAND—TOWN OF PORTO PRAYA—ITS POPULATION—LANGUAGE—VISIT TO THE GOVERNOR—PUBLIC FOUNTAIN—MARKET—DRILL OF RECRUITS—DROUGHTS—CLIMATE—SLAVES—DRESS—DEPARTURE FROM PORTO PRAYA—FURTHER SEARCH FOR SHOALS—ARRIVAL AT RIO JANEIRO.

On the 25th of September, having completed all that was deemed necessary, we sailed from Madeira, and stood to the southward, intending to pass over the localities where shoals were supposed to exist.

After passing the Canary Islands, we experienced a current setting north-east by east, of about one-fourth of a mile an hour, until we reached the latitude of Bonavista, one of the Cape de Verde Islands. This somewhat surprised me, for I had formed the idea that the set of the current should have been in the direction of our course; but many careful observations with the current-log, and the difference between our astronomical observations and dead reckoning, gave the same results.

It was my intention on leaving the United States to pass from Madeira through the Sargasso Sea, in order to ascertain something definite in relation to this unexplored and interesting locality, and to gain some information relative to the fucus natans, or gulf-weed, the origin of which has remained so long in doubt. Deep soundings in this part of the ocean I deemed would be very interesting, and afford an opportunity of settling the origin of this plant, which is spread over the whole ocean; but my time did

not permit me to make this deviation from our direct course, and I hoped on my return to have ample leisure for its exploration.

On the 29th of September we passed into discoloured water, as green in appearance as that of fifty fathoms' depth. On entering it, the thermometer fell one and a half to two degrees. The distance run in it was about four hundred and fifty miles. Repeated casts of the deep sea lead were had in from two to three hundred fathoms, but no bottom found. The water was particularly examined for animalculæ, but none were detected. On leaving it, a rise of temperature took place of two degrees; and much phosphorescence was seen when we had passed out of it.

The first shoal searched for was the Maria Rock, said to be in latitude $19^{\circ} 45' N.$, and longitude $20^{\circ} 50' W.$ In its neighbourhood our position was carefully ascertained. The vessels were then spread in open order, and a course sailed to pass directly over the spot. The surface of the ocean visible was not less than twenty miles in latitude, with every opportunity which clear weather could afford. Good look-outs were kept at the mast-head, and there was a sufficient swell to cause breakers on any shoal within fifteen feet of the surface. We

ran over the locality without perceiving any thing that indicated a shoal.

The situation of the Bom Felix Shoal, laid down about ten leagues to the south of the above, was passed over in the same manner, sounding repeatedly for bottom with three hundred fathoms of line, but no appearance of a shoal was observed.

The reported position of the Bonetta Rocks next claimed our attention, in latitude $16^{\circ} 32' N.$, and longitude $20^{\circ} 57' W.$ After this locality had been well examined, a course was steered over its supposed bearing from Bonavista, one of the Cape de Verde Islands. The vessels of the squadron sounding every half hour during the night, which was clear and bright moonlight*.

On the night of the 6th of October, we hove to off the island of St. Jago. Seldom have we seen the sea exhibit so much phosphorescence. Its brilliancy was so great, that it might truly be said to have the appearance of being on fire. We made some experiments to ascertain the depth to which these phosphorescent animalculæ extended. After many trials, they were not found below eighteen fathoms. The temperature of the water at that depth was 79° , at the surface 80° , and at one hundred fathoms depth 58° . The mean temperature of the air from Madeira until our arrival off this port, was found to have increased from 69° to 78° , while the difference in the water was from 71° to 81° .

On the morning of the 7th, we anchored in Porto Praya bay. The island of St. Jago presents a very different appearance from Madeira, particularly the south-eastern portion of it, though its formation is known to be similar. There are many high peaks and mountains in its centre, which afford a fine background for the barren and uninteresting coast scenery.

The time of our arrival was just after the rainy season, the island consequently presented a more verdant appearance than it does at other seasons of the year.

Our consul, F. Gardiner, esq., came on board, and made us welcome to all the island afforded. An officer was despatched to call upon his excellency the governor, to report our arrival, who proved to be a black man. Knowing that the regulations required permission for vessels to depart, the request was made during the interview, which he readily granted at any hour we chose.

The town of Porto Praya is prettily situated on an elevated piece of table land, and looked well from the anchorage.

The bay is an open one, but is not exposed to the prevailing winds. There is generally a swell setting in, which makes the landing unpleasant and difficult. The only landing-place is a small rock, some distance from the town, and under a high bank, on which there is, or rather was, a fortification, for it is now entirely gone to decay. It

* Since our examination, I have seen a letter from the American consul at Porto Praya, F. Gardiner, esq., detailing the wreck of the British ship Charlotte in 1841, and placing this shoal in latitude $16^{\circ} 17' N.$, longitude $22^{\circ} 21' W.$, $84'$ in longitude and $15'$ in latitude from the position I searched for it in; whence it appears that it is the same reef on which the Magdelaine was lost. I have no kind of doubt but that they ought all to be referred to the Hartwell Reef. The same gentleman was confident at the time I saw him that the Magdelaine had been lost on the reef of that name.

commands the bay, and is situated about two hundred feet above the sea. The horizontal stratification of the red and yellow-coloured sandstone shows most conspicuously in this cliff, and forms one of the most remarkable objects on this part of the island. It is of tertiary formation, and contains many fossils.

On landing, a stranger is immediately surrounded by numbers of the inhabitants, with fruit, vegetables, chickens, turkeys, and monkeys, all pressing him with bargains, and willing to take any thing for the purpose of obliging their customers. Many of them continue to follow until they meet with some new customer.

The soil, rocks, and every thing around on the surface, show unequivocal marks of volcanic origin. The rock above the tertiary formation is a thick bed of cellular lava, with fragments of the same strewn in every direction over it. A thin and poor soil gives but little sustenance to a light herbage. Goats and asses are found in great numbers grazing upon it.

The walk from the landing to the town is exceedingly fatiguing, and the road deep with sand. The first view of the town on entering it is any thing but striking, and all the ideas formed in its favour are soon dispelled. The houses are whitewashed, and in general appearance resemble those inhabited by the lower orders in Madeira, but they are much inferior even to them. The north-east part of the town is composed of rough stone houses, covered with palm leaves. The streets are wide, and in the centre is a large public square, the middle of which is occupied by a small wooden monument said to be emblematical of royalty! A chapel, jail, and barracks constitute the principal public buildings. The fort, which flanks the town, is almost entirely in decay. This is the case with almost every thing we saw here; the place is, indeed, little better than an African town. The houses are of stone, one story high, partly thatched, and others tiled. Their interior presents only a few articles of absolute necessity. Of comfort and cleanliness, in our sense of the words, they have no idea. The houses and streets are filthy in the extreme; and in both of them, pigs, fowls, and monkeys appear to claim, and really possess, equal rights with the occupants and owner.

The population is made up of an intermixture of descendants from the Portuguese, natives, and negroes from the adjacent coast. The negro race seems to predominate, woolly hair, flat noses, and thick lips being most frequently met with. The number of inhabitants in St. Jago is about thirty thousand. Porto Praya contains two thousand three hundred, of which number one hundred are native Portuguese.

The language spoken is a jargon formed by a mixture of the Portuguese and negro dialects. Most of the blacks speak their native tongue. Mr. Hale, our philologist, obtained here a vocabulary of the Mandingo language, and found it to agree with that given by Mungo Park.

The officers of this garrison were, like the governor, all black. The latter made a brilliant appearance, dressed in a military frock coat, red sash, two large silver epaulettes, and a military cross on his breast. He was good-looking, although extremely corpulent, and speaks both French and Spanish well. He was very civil and attentive.

Fruit, bread, cheese, and wines were handed about. Some of the wine was made on the island of Fogo, and resembled the light Italian wines. The cheese also was made here from goats' milk, and resembled the Spanish cheese. After doing ample justice to his excellency's good fare, we proceeded to view the lions of the place.

The first and greatest of these is the fountain, or common watering-place of the town, above half a mile distant by the path, in a valley to the west of the town, and almost immediately under it. The fountain is surrounded by a variety of tropical trees, consisting of dates, cocoa-nuts, bananas, papayas, sugar-cane, and tamarinds, with grapes, oranges, limes, &c. &c., and when brought into comparison with the surrounding lands, may be termed an enchanting spot; but what adds peculiarly to its effect on a stranger, is the novelty of the objects that are brought together. Over the spring is a thatched roof, and round about it a group of the most remarkable objects in human shape that can well be conceived. On one side blind beggars, dirty soldiers, and naked children; on another, lepers, boys with monkeys, others with fowls, half-dressed women, asses not bigger than sheep, and hogs of a mammoth breed; to say nothing of those with cutaneous disorders, that were undergoing ablution. All conspired to form a scene peculiar, I should think, to this semi-African population. Here sailors watering and washing, chatting, talking, and laughing; there a group of *far niente* natives of all sizes, shapes, and colours, half clothed, with turbaned heads and handkerchiefs of many and gay colours, tied on after a different fashion from what we had been accustomed to, the shawls being reversed, their ends hanging down behind instead of before, completely covering the breast and one-fourth of the face. This well barely supplies the wants of the inhabitants and shipping, and they are now about building a reservoir. The whole of the stone for it was prepared in Portugal, and made ready for putting up. It is to be of marble, and the water for its supply is brought two miles in iron pipes.

A market is held daily in the morning when any vessels are in port. The square in which it is held is quite a large one, with a cross in its centre. The market is not of much extent, but a great variety of tropical fruits, of the kinds before enumerated, are exposed for sale in small quantities, as well as vegetables. These consist of cabbage-leaves, beans, pumpkins, squashes, corn, potatoes, yams, mandioca, &c. All these were spread out on the large leaves of the cocoa-nut tree. No kind of meat was for sale. The only articles of this description were chickens four or five days old, tied up in bunches, and some eggs. In order to obtain beef, it is necessary to buy the cattle at the cattle-yard, where, on previous notice being given, you may choose those that suit for slaughter. They are in general of small size, and dark-coloured. Those we saw were from the interior of the island, where they are said to thrive well.

The morning drill of the recruits which was witnessed was amusing. They were cleanly dressed, but the rattan was freely used by the sergeant; and what seemed characteristic or in keeping with appearances around, the sergeant during the drill ordered one of his men from the ranks to bring him some fire to light his cigar!

No trades were observed, and but one small carpenter's shop. A few shops were supplied with cotton, hardware, &c. There were likewise a number of little wine shops, where they also sold fruit, which they usually have in great plenty; but all their crops depend much upon the rains, and the inhabitants have also become indifferent or careless about raising more than for their own supply, from the heavy exactions of government made upon every thing that is cultivated. The demand for shipping has of late years very much decreased. The improvement in the supplies and comforts on board of vessels on long voyages, now make it unnecessary to touch in port, as was formerly deemed unavoidable.

Porto Praya is yet visited by whale-ships for supplies. Although the soil is poor, and the crops very uncertain, yet the tropical fruits and some vegetables can always be obtained here. They are usually, if time is allowed, brought from the interior. The inhabitants have at times suffered almost the extremes of famine, in consequence of the droughts that prevail for successive years, and especially during the one that took place in 1832.

The exports from these islands are salt, some ordinary wine, hides, goats' skins, and orchilla. The latter is a government monopoly. Ninety thousand milrees were paid by the company for the yearly crop, and it is said at that price to yield a handsome profit.

The climate of these islands is said to be healthy, though exceedingly warm. It is subject to fevers, which generally take place during the rainy months of July and August. There is an indistinctness in the atmosphere that I have not experienced elsewhere, which causes every thing to be ill-defined, although the day may be fair. The same appearance was observed after a shower of rain as before. The temperature of the air was found here to be 75-77°, and of the water 81°.

Slaves are imported from the coast of Africa, and settlers or heads of families are not allowed to bring with them more than ten slaves. There was one at the consul's, recently imported from the Foolah district in Africa, who was purchased by him for one hundred and fifty dollars.

The costumes here are so various, that it scarcely can be said that any one of them is peculiar to the island. The men generally wear a white shirt and trousers, with a dark vest, principally the cast-off clothing of the whites. Others go quite naked, excepting a straw hat; others again are in loose shirts. The women have a shawl fastened around them, with occasionally another thrown over them, covering the mouth and bust, and crossing behind. The children for the most part go naked.

The Relief not having arrived, I deemed it an unnecessary detention to await her here. There was great necessity of reaching Rio de Janeiro as soon as possible, in order to complete our outfit, and put the vessels in fit condition to meet the Antarctic cruising as soon as possible. I therefore determined to proceed thither forthwith. The store-ship did not reach Porto Praya until the 18th, after a passage from Hampton Roads of sixty days. Nothing more truly illustrates the necessity of navigating in the prevailing winds, than this passage of the Relief compared with that of the squadron. We took the route by Madeira, over one thousand miles greater in distance, re-

mained there a week, and yet we arrived at Porto Praya eleven days sooner. The Relief, pursuing the direct route, had light baffling winds during her whole passage. Although something is undoubtedly due to her dull sailing, yet the difference is too great to be entirely attributed to that cause. The winds were generally found by her from the northward and eastward, and southward and eastward, whilst we, in a higher latitude, had them from the south-west and the westward.

On the 7th of October we left Porto Praya, and stood for Patty's Overfalls, as laid down on the chart, in latitude 11°N. , and longitude $24^{\circ} 25' \text{W.}$ We lost the trade winds the day after we left Porto Praya, the 8th of October, in latitude 12°N. , and longitude $23^{\circ} 30' \text{W.}$ The winds then became variable, and squalls of rain ensued. The upper clouds had still a quick motion to the westward.

On the 9th we reached the supposed position of Patty's Overfalls, and were becalmed close in their proximity for forty-eight hours. Nothing was seen of them. If any had existed, we must have been made aware of it during the time we were becalmed, for we remained nearly in the same position forty-eight hours. Thence we stood for Warley's Shoal. The weather had the same indistinctness that we had first observed at Porto Praya. It might be termed a dry haze.

The 24th we reached the position assigned to Warley's Shoal, in latitude $5^{\circ} 4' \text{N.}$, longitude $21^{\circ} 25' \text{W.}$ We passed over the supposed locality, but saw no appearance of shoal water, or danger of any kind.

We now ran for the French Shoal, in latitude $4^{\circ} 5' \text{N.}$, longitude $20^{\circ} 35' \text{W.}$ Here the wind inclined to the southward, and we proceeded as far east as longitude 13°W. , passing over the two positions laid down by the French and English hydrographers, but saw nothing of it.

We now tacked to the southward, to cross the equator in longitude 17°W. The weather had changed, the rains which we had experienced at night ceased, and the extremely indistinct atmosphere which at times had prevailed for the last fortnight disappeared. It is difficult to describe the peculiar effect this haziness produced. It seemed to me an effect the opposite of that of looming, apparently diminishing all objects. Although the horizon was seen, yet the sea and sky were so blended together, that it was difficult for the eye to fix upon or define it at any moment. It was impossible to use the dip sector. At the same time it was perfectly clear over head, with a bright sun, and the upper cirrus clouds, when seen, were in rapid motion to the westward.

The nights were now beautiful until near morning, when it generally clouded over, and remained overcast with flying clouds until evening. The zodiacal light was once or twice observed, but the presence of these clouds for the most part prevented it from being seen.

On the 29th, in latitude $3^{\circ} 40' \text{N.}$, our observations gave a current of ten miles in twenty-four hours, to the north. Until the 3d of November we had light winds; the upper stratum of clouds was now seen moving from the east. On the 4th we had a cry of breakers from the mast-head. We immediately changed our course and ran for the appearance, but it proved on nearing it to have

been one of the many optical illusions seen at sea, from the effect of light and shadow.

On board the Peacock, on the 30th of October, in latitude $1^{\circ} 30' \text{N.}$, longitude 18°W. , they witnessed a remarkable appearance, resembling the aurora borealis, radiating from the north-west point of the horizon in different directions, and extending from south-west round by the north to the eastward, at an altitude of from 10° to 50° ; afterwards reaching to the zenith, and passing over the moon's disk, encircling her with a faint halo of twenty degrees in diameter. It continued an hour, and although it was bright moonlight, the phenomenon was very distinct and beautiful.

On the 5th the winds drew to the south-south-east, and we crossed the line, as we had intended, in longitude 17°W. , which enabled us to pass over and examine the supposed locality of the Triton Bank, in longitude $17^{\circ} 46' \text{W.}$, latitude 32°S.

We had now heavy deposits of dew, on several fine and cloudless evenings. Indeed the sun had scarcely set before the ship was quite wet with it. One of the essential requisites supposed necessary by Dr. Wells for a deposit of dew was certainly wanting in this case, viz. that "the temperature of the body on which it was deposited should be considerably lower than the surrounding air;"—the temperature of the air and ship having remained the same for several days at about 78° : all objects, hammock-cloths, spars, sails, and rigging, so far as could be ascertained, showed the same. And at the time when the dew was observed to be most copious we had a fine breeze. It has generally been supposed that dew never falls off soundings. This at least is an old saying among seamen: but our observations are at variance with this notion; for as far as every indication went, both by sounding and blue water, we certainly had no bottom.

The supposed position of the Triton Shoal was now passed over, and examined carefully in the same manner as heretofore described, sounding at the same time with two and three hundred fathoms of line. Nothing of the kind was perceived, nor was there any indication of soundings in the discoloration of the water, or any change in its temperature.

On the 7th November at noon we were in longitude $18^{\circ} 20' \text{W.}$, and latitude $3^{\circ} 30' \text{N.}$ I then stood for Bonvet's Sandy Isle, or its reported position. We saw nothing of it whatever. I was very desirous of continuing my search farther to the west, from the report I had seen of various vessels having experienced shocks of earthquakes, and the belief having been entertained that shoals might have been formed by them. The equatorial current having been felt, I was aware that in getting farther to the west, I should lose the opportunity of examining the locality where that distinguished navigator, admiral Krusenstern, supposed he saw a volcano. I therefore gave up proceeding further to the westward in this latitude, and hauled up for its position.

It was now the 9th of November; we had delightful weather, and moderate breezes from the south and east.

An amusing circumstance occurred this night. In our course we passed very near a large sail, which, from the night being dark, the officer of the deck of the Porpoise mistook for the Vincennes, although sailing on a different course. He imme-

diately, agreeably to his orders, followed the vessel, and continued after her until morning, when, to his surprise, he discovered that it was a large Dutch ship. Fortunately I had perceived the ship pass, and conjectured, when we found the Porpoise was not in sight at daylight, the nature of the mistake. I therefore retraced my steps, and in an hour or two we again came in sight of her, then tacked and proceeded on our course. On the next day, the time being very favourable, we hove-to, to get a deep-sea sounding with the wire line, and ran out one thousand six hundred fathoms of it. On reeling it up, the wire parted, and we lost nine hundred and sixty fathoms of line, with our sounding apparatus, including one of Six's self-registering thermometers. The wire was badly prepared and ill adapted to the purpose.

On the 11th we found ourselves near the location of Krusenstern's supposed shoal, ran over the position in parallel lines, and satisfied ourselves of its non-existence.

On the afternoon of the 23rd of November, we took a light wind from the south-east, and with all sail set stood in for the magnificent harbour of Rio Janeiro. Our attention was drawn first to the high, fantastic, and abrupt peaks of Gavia, the Sugar Loaf, and Corcovado on our left; whilst on our right we had the bold point of Santa Cruz; then before us the city of San Salvador, and the towns of San Domingo, with Praya Grande opposite, and the islands and fleet that lay between them decking this beautiful expanse of water. These objects, with the pinnacles of the Organ Mountains for a background, form such a scene that it would be difficult to point out in what manner it could be improved. The life and stir created by the number of vessels, boats, and steamers of various forms and of all sizes passing to and fro, give great animation to the whole.

The mountains present a very peculiar appearance. Their tops and sides have a rounded or worn surface, destitute of verdure, with the exception of here and there a yellowish patch, produced by the Tillandsias, which in places covers the rocks. The abruptness of the Sugar Loaf mountain, and those immediately behind Santa Cruz, strikes the spectator very forcibly.

The shipping do not form as in other places a dense forest of masts. There being no wharves, they are obliged to lie at anchor, exhibiting their proportions and symmetry to great advantage. They are usually seen grouped together, with their different flags flying, forming a picture that a painter would delight in.

There is a feeling of security on entering the harbour of Rio, that I have seldom experienced elsewhere, not even in our own waters. The mountains seem as it were to afford complete protection from the winds and ocean. We anchored near Euxados or Hospital Island, and found the Peacock had arrived here three days before us, and that she was proceeding with her repairs rapidly. The vessels being altogether unfit for the southern cruise, it became necessary to effect the requisite repairs as speedily as possible.

We are indebted to the Hon. William Hunter, our chargé d'affaires, and our consul, William Slacum, esq., for many kindnesses and attentions received during our stay at Rio. Through their intercession, I obtained the use of the small island of Enxados, which was well adapted to our purposes. The instruments and stores were allowed to be landed there free of inspection, and every assistance we could desire was afforded us by the government and its officers. How different a policy and treatment from that pursued towards captain Cook some seventy years before, under an ignorant and jealous colonial government!

CHAPTER III.

RIO DE JANEIRO.

RIO DE JANEIRO—ITS IMPROVEMENT—ITS PRESENT CONDITION—CHURCHES—THE MISERICORDIA—FUNERALS—EMPEROR'S BIRTHDAY—AQUEDUCTS—PUBLIC GARDEN—MUSEUM—BAY AND HARBOUR—VEGETATION—BOTANIC GARDEN—SLAVE POPULATION—COFFEE-CARRIERS—STREETS OF THE CITY—SOCIETY—WHITE-JACKET BALL—ARRIVAL OF THE RELIEF—SURVEYS—DEFECTS IN THE EQUIPMENT OF THE SQUADRON—TRIP TO THE ORGAN MOUNTAINS—ASCENT OF THE CORCOVADO.

THE city of San Salvador, better known as Rio de Janeiro, has been often described. At the time of our visit, a great change appeared to have taken place within a few years, as well in its outward appearance as in its government and institutions, thus giving to the whole a different aspect from that it formerly wore. Under its former monarch, Don Pedro the First, it had all the aspect of a court residence; now it is the very reverse. I shall therefore give my own impressions, and sketch a picture of its state as we found it in the latter part of the year 1838.

Republican forms, habits, and customs, are gradually creeping in under its new and reformed constitution. It is not to be denied that the people

now appear to be much better off than formerly, and more at liberty to carry on their lawful pursuits. Commerce and intercourse with foreigners are every day making liberal advances. Every one, on his first landing at Rio, will be struck with the indiscriminate mingling of all classes, in every place, all appearing on terms of the utmost equality;—officers, soldiers, and priests, both black and white, mixing and performing their respective duties, without regard to colour or appearance. The only distinction seems to be that of freedom and slavery. There are many wealthy free blacks, highly respectable, who amalgamate with the white families, and are apparently received on a footing of perfect equality. The police, too, consisting of a

national guard, has taken away those forms of military parade that formerly existed. An air of independence is creeping in even among the working classes. Any little service that is required, and for which they are well paid, they appear to consider as a favour done you. The mechanical arts are at least half a century behind those of our own country. The churches, which are numerous, are falling into decay, which gives a dilapidated look to the city; its religious ceremonies are dispensed with, and to crown all, the steps of the churches are made a market-place for the sale of sheep, pigeons, fruit, &c. To judge from appearances, and the attendance on its services, there exists little religious feeling towards the Roman Church. It is true, the same constant ringing of bells occurs that is to be heard in all Catholic countries, and other outward signs are still kept up; but the priesthood are not regarded with such awe as they formerly were, and society seems to be breaking through the trammels that have so long enslaved the female portion of it. Religion is a mere name among the youth of Brazil. The aged are still observant of its ceremonies, but little or no attention is paid to the Sabbath. The stores and the workshops are open the same as on other days. A few are seen going to worship in the morning of that day, but a greater number attend the billiard-tables in the afternoon, and the theatres at night.

We saw Rio de Janeiro under its most favourable aspect, that of the holidays, when the church had put on all her finery and decorations, and every one, slave as well as master, seemed intent upon enjoying himself. The Christmas week or holidays give a respite from all labour, and various are the amusements. The churches are decked, and the services extraordinary.

The neglect of the public walks and roads shows a want of proper attention, and strikes the visitor as different from the usual order of things around a court. So far as cleanliness goes, Rio, I am told, is not much improved. It has every advantage to make it a clean city, but the inclination appears to be wanting. Although the government is doing little, one sees the spirit of enterprise among the citizens. Many private dwellings are being erected, and I understood that many other improvements were taking place.

The houses of the city are strongly built of stone, cemented together with clay; this is used in consequence of the scarcity of lime, which is only obtained by burning shells fished up from the bay. The houses are plastered on the outside, and have a pretty appearance and colour. The floors, beams, and roofs are made of the hard wood of the country, of great size and strength, which are indeed necessary from the heavy tile roof they have to bear. Very few of the houses have yards, cellars, or gardens; consequently the dwellers are still greatly incommoded from the want of water-closets, detrimental both to health and comfort, and not only an annoyance and inconvenience to the inhabitants themselves, but shared by the stranger in passing through the streets.

We of course saw all that was to be seen in Rio. The churches claimed our first attention. They are richly decorated in the interior, with massive gold and silver ornaments. On some of the altars of the saints it is the practice to suspend the

diseased parts of the body in wax, in honour of the cure supposed to have been effected by the saints' intercession. The sight of these is truly disgusting, although they are far from being well executed.

The Misericordia has now become much out of repair, and I understood had fallen off in its charitable usefulness, but it still shows the remains of its former splendour. Few monks were seen about, and dead bodies were laid out in the Green House. At the time we visited it there were eight, the greater part of whom were negroes. A monk was seen saying a hasty prayer over the bodies, which were at once thrown into the trench, when they were sprinkled with lime, placing one layer over the other, until the hole, about six feet square and as many deep, is filled or level with the surface. After one of the trenches is filled, another is dug by the side of it. The crowded state of this place of interment is but too evident from the number of skulls and bones lying about, some still with portions of flesh adhering to them.

On the same evening, whilst this scene was still fresh in our minds, and as if in strong contrast with it, we met the funeral of a person of distinction. A black hearse, ornamented with black plumes, was drawn by mules. The driver had a cocked-hat and black plume. The coffin was covered with a scarlet pall ornamented with silver. About twenty altar-boys, in their church dress, preceded the hearse, which was surrounded by about the same number of black servants, in livery, all carrying lighted wax candles. The body, on arriving at the imperial chapel, was removed into it, and all who entered the chapel were furnished with lighted tapers. Mass and the funeral service were performed by the priest, and some delightful music by a full choir. The body was then taken into the Campo Santo, a kind of amphitheatre, with high walls, a short distance from the church. About a thousand vaults are built in the wall. One of them was opened, the body interred, and the wall built up again. The centre of this sepulchre is laid out in a flower-garden, and is about one hundred feet in diameter.

December 2d was the birthday of the emperor, Don Pedro the Second, who then was thirteen years old. It was celebrated with all due pomp. Great preparations had been making for many days. He was to pass into the city from St. Christoval, his usual residence, in procession, and to hold a levee at the city palace. The streets were strewn with orange and other leaves, a triumphal arch erected, &c. But a description of his progress will give a better idea of it.

Having left St. Christoval, he entered the city about noon, preceded by a large troop of horse. He rode with his sisters, one sixteen, the other fourteen years of age, in a splendid English carriage, with bronze and gold mountings, drawn by eight cream-coloured horses, gaily caparisoned, with silver-mounted harness, the servants in rich liveries. Three carriages, drawn by six horses each, followed, containing officers of state and his household, the whole surrounded by the emperor's guards, and above five thousand military following. Great crowds of people had assembled to witness this parade. As the carriages passed under the balconies, garlands of flowers were thrown upon them. They entered the principal street through a triumphal arch, beautifully decorated

with natural flowers, on which were placed two little boys, dressed in blue and pink, with wings to represent angels, each holding a basket of flowers, which they threw on the young monarch as he passed. The houses in the streets through which the procession moved were hung with satin damask draperies of the richest tints. These I understand are kept expressly for such occasions. At short intervals national flags were suspended across the streets. The emperor moved on, receiving the same marks of affection from his subjects until he reached the great square and palace, where he alighted. The troops forming around the square soon came to order, and a general pause ensued, until the firing of the *feu de joie* began, one of the most deafening I ever heard. He finished this public exhibition by showing himself to the multitude below from the balconies of the city palace, and was received with many *vivas*.

He then held his levee, which the Rev. Mr. Walsh has so well described, and which closely resembled the one at which he was present, with this difference, that this was much more of a farce, in consequence of the boyhood of the emperor. Nothing can be more ridiculous than to see all the dignitaries and old men, the mitred bishop, the sage diplomatist, and the veteran soldier, ushered into the presence, and out again, without saying a word, or turning their backs on the young monarch. Mr. Walsh has, however, said nothing about the scene in the anteroom; to me it was the most ridiculous of all. The arranging the order of entrance to the presence, with due form and etiquette; the examination by each diplomatist, that he has his due order of precedence; their anxiety to gather their suites around them, not unlike a hen with her chickens, to make the fullest show; all prepares one for the ridiculous scene that is to follow. The oldest resident minister always takes the lead. At night the city was illuminated.

Rio is now well supplied with water. Aqueducts have been finished within the last two years, which bring it from the Corcovado and Tejuca mountains, a distance of six or seven miles. There are a number of public fountains in different parts of the city. All the water for the supply of families is transported by slaves. These fountains have numerous jets, and some have pretty edifices over them. During the day, there are seldom less than fifty to one hundred, both male and female, water-carriers around them, filling their jars, with which they are seen moving about poised on their heads. Near the large fountain called Hafariz, in the square of Santa Anna, are two large basins, about fifty feet long and twenty-five wide. These are commonly filled with about two hundred negro women, who daily assemble to wash. Numbers of them are half naked, standing up to their middle in the water, beating and thrashing the clothes they are employed to clean against the adjoining wall.

Few articles are transported in any other way than by slaves, and it is extremely rare to see a cart drawn by any beast of burden. Antique looking carriages and two-wheeled calescas are generally seen.

The museum is open twice a week: it is quite creditable to the city, and well worth seeing. It appears to attract more attention from the inhabitants of Rio than I should have been led to expect.

It is extremely rich in its native collections, and is well taken care of.

The theatres, of which there are three, are seldom open on week-days, but always on Sunday.

The bay is very beautiful and is usually covered with small boats, felucca rigged, without decks, and generally about twelve tons' burden. These boats are rowed by blacks. The oars are large, the men row in a standing posture, and thus add the weight of their bodies to their strength. At times the bay seems alive with the number of these vessels, and of small canoes, each made of a single trunk, which are used in fishing. Many of these vessels are also engaged in the coasting trade. Foreigners are usually employed to take charge of the latter, which sail under the Brazilian flag. Steamers are beginning to be used. One plies between Rio and Santos, and during our stay, another left the harbour for Monte Video. The greater part of the vessels in the bay are under foreign flags, and I was much surprised to observe how few comparatively are English, and how many are from the north of Europe.

The harbour of Rio may be considered as not extending further than Enxados Island, above which few vessels lie. The front of the city is not well adapted for wharves, and none consequently exist. There are some stairs, but they are not well protected from the sea, which at times renders landing almost impossible.

In Rio, the vegetation seems to fix the attention above all other things, especially of those situated as we were in the harbour, having it continually before one's eyes.

Here, as in all tropical climates, the truth of the remark made by a botanist, "that every thing grows into shrubs and trees," is obvious. Herbaceous plants are rare, and annuals may be said to be almost wanting. The fruit trees are generally seen bearing fruit and flowers at the same time. This was the case, as observed by one of our party, even in the cultivated apple on the Tejuca mountains.

The botanic garden is in a flat situation, backed by a high ridge of mountainous land. In front is a lake of brackish water, which forms a considerable bay, and communicates with the sea by a narrow inlet. The entrance to the garden has a mean appearance, and does not correspond with the broad promenades within, which are planted with trees on each side. The whole is laid out in the old Dutch style; seats, arbours, and houses are cut out of arbor vitæ (*Thuja orientalis*). In the centre of the garden was a small fountain, near which grew some fine specimens of the splendid bougainvillea bracteata, in full flower. There is also a fine collection of orchideæ, which are cultivated on decayed trunks of trees. The bread-fruit trees (*artocarpus incisa* and *integrifolia*) succeed very well. There were some trees of both kinds forty feet high, and the fruit of the latter as large as an ordinary water-melon. Several groups of bamboos had a good effect among the other trees, but their stems bore evidence of a propensity to the carving of names, as a memento of the persons' visit. Among them I was glad to see the names of many Europeans, which serves to prove that this habit does not exist among Americans alone. Here an attempt was made some years since to introduce the tea-plant, with natives of China to cultivate it.

The plantation appeared to our botanical gentlemen in a sickly state.

The great and distinctive characteristic of Rio may be said to be its slaves and slavery. This evil continually presents itself to the observer, and he cannot, if he would, divert his attention from the many sights which keep it before his mind.

The slave population is stated at five times the number of that of the whites, and notwithstanding the existing danger of maritime capture, the supply still seems equal to the demand. Although many slavers are taken by the English cruisers, brought in and tried by the mixed commission, agreeably to treaty, yet means are found to introduce the slaves. Two slavers were lying in charge of the English squadron while we were there. On board of them, though quite small vessels, were two and three hundred negroes. It is difficult to imagine creatures more emaciated and miserable. Nor will it fail to excite surprise, that they should be kept thus confined by those who affect to establish their freedom and ameliorate their condition. These vessels it is understood had obtained their victims on the eastern coast of Africa.

Slaves are almost the only carriers of burdens in Rio Janeiro. They go almost naked, and are exceedingly numerous. They appear to work with cheerfulness, and go together in gangs, with a leader who carries a rattle made of tin, and filled with stones (similar to a child's rattle). With this he keeps time, causing them all to move on a dog-trot. Each one joins in the monotonous chorus, the notes seldom varying above a third from the key. The words they use are frequently relative to their own country; sometimes to what they heard from their master, as they started with their load, but the sound is the same.

These slaves are required by their masters to obtain a certain sum, according to their ability, it is said from twenty-five to fifty cents a day, and to pay it every evening. The surplus belongs to themselves. In default of not gaining the required sum, castigation I am told is always inflicted.

It is said that the liberated negroes who own slaves are particularly severe and cruel. The usual load carried is about two hundred pounds weight.

Vast numbers of slaves have been and are still imported annually into this market; and as very many of the same nation or tribe associate together, they retain their own language, even after they have been in the country for some years. It may be seen by the most cursory examination that they are marked in such a manner as to serve to distinguish their different races. Some have little of the distinctive negro character, and others more of it than any human beings we had seen.

The negroes of Brazil who have been brought from North and South Africa are divided into two distinct and very dissimilar classes. The natives of that portion of the continent known under the general name of Upper Guinea, include the countries in the interior as far as Timbuctoo and Bornou, being the whole of that region lately explored by the English expeditions. The slaves from this quarter, though of various nations and languages, have yet a general likeness, which stamps them as one race. In Brazil they are known under the name of *Minas*.

The Minas slaves are said to be distinguished

from others by their bodily and mental qualities. They are generally above the middle height, and well formed, and betray little of the levity usually ascribed to the negro race.

In Brazil they occupy the highest position that slaves are allowed to attain, being employed as confidential servants, artisans, and small traders. They look down upon, and refuse to have any connexion with, or participation in, the employment of the other negroes. Many of them write and read the Arabic, and all can repeat some sentences of it. The greatest number of slaves who purchase their freedom belong to this race.

There is one singularity which seems to be common to the inhabitants of both regions, and which may be compared with the practice of tattooing which prevails throughout the tribes of Polynesia, viz. the custom of cutting or branding certain marks upon the face and body, by which the individuals of one tribe may be distinguished from those of any other. This practice is general among all the Minas, and also prevails along the Eastern or Mozambique coast of Southern Africa. Among the Western or Congo tribes it does not appear to be universal. It will be readily understood that these marks are of great service to the slave-traders, and all that have much to do with native Africans soon learn to distinguish them; and the price of a slave is depressed or enhanced accordingly.

The Minas are held in much fear in Brazil. They are extremely numerous at Bahia; and it is understood that during a late insurrection, they had fully organized themselves, and were determined to institute a regular system of government. They had gone so far as to circulate writings in Arabic, exhorting their fellows in bondage to make the attempt to recover their liberty.

Tattooing, or marking, does not prevail among the tribes of Lower Guinea to any great extent. The Kambindas, who border immediately upon the Minas, appear to have borrowed from them the custom, but employ it rather for the purpose of ornament than as a mode of distinguishing their origin. The marks or figures with which they brand themselves are various, and sometimes ornamental.

The Mundjola, a savage tribe, living in the interior, beyond the Loango district, are esteemed the least valuable of all the blacks imported into Brazil, being stupid, ferocious, and intractable. In Africa they are stigmatized as man-eaters by the other negroes. The Mundjola have the usual negro features, with somewhat of a Tartar expression.

The Benguela blacks have a much higher character as slaves than the other nations of Lower Guinea. They are next in estimation to the Minas, being steady, industrious, and intelligent. They make excellent husbandmen. They are generally of good height, with features having less of the negro stamp than those of the Congo: the forehead tolerably high, the nose not much depressed, and the lips moderately full.

Many disgusting objects may be seen among the slave population at Rio, but I do not recollect having met with a beggar. I have understood that they are not suffered to appear in the streets. This is the law in almost all cities, but here it is rigidly observed.

The streets of the city generally cross each other at right angles. Some few of them have side-walks, but they are narrow and badly paved. The gutters are in the middle of the streets, with a stream of water which emits a smell by no means agreeable. Those most frequented are the Rua Direita and Ovidor. The former, containing the palace and cathedral, is the broadest in the city. In the latter are the principal shops, and it is the gayest. The streets are paved with blocks of stone. What gives Rio its principal charm, are its suburbs and the small quintas around it. Nothing can exceed the beauty of those around Gloria and Botofogo.

The amusements of riding and fishing, with water excursions, are frequent, and of the most agreeable kind. These and other advantages of so fine a climate soon render a residence at Rio quite desirable. There is much pleasant foreign society, composed of the diplomatic corps, many retired gentlemen, and generally the officers of the several men-of-war of different nations.

There appears to be but little intercourse between the Brazilians and the foreign society. The female sex particularly is still much restricted in this respect; and although great improvement has taken place, yet they seldom mix in social intercourse with foreigners; I am told that even among themselves they are seldom seen except at ceremonious parties. They are very much as one would expect them to be, reserved, retiring, and wanting in education. They dress after the French fashion, and are usually covered with finery, often displaying splendid jewels, without taste. There is none of that ease and gaiety which exists where the fair sex is considered on an equality with the other, and there is a total absence of that tone which a consciousness of their value gives to society. Their usual place of resort during the afternoon and evening is the balconies of their houses; some of them are occasionally seen at church. It is said they soon lose their beauty, an early age being considered as their prime.

Among the many places to which we had the honour of an invitation was one of their monthly balls, the white-jacket ball, at Praya Grande; so called in consequence of a request being made on the card of invitation, that the gentlemen would come in white jackets, and the ladies appear without brilliants or other jewels. We gladly accepted the invitation.

On reaching the anteroom we were met by the committee of gentlemen or managers, and kindly greeted without ceremony, making us at once feel at our ease. We were shortly after ushered into one of the most splendid ball-rooms I ever saw. There were upwards of three hundred present, all dressed in pure white, without any finery whatever. The room was brilliantly lighted. We were shown around, and introduced to a great many persons of both sexes, who all seemed bent on amusement. It was truly a *sans souci* meeting. Seldom have I seen so much good taste as was displayed in the arrangements, or so good a tone of society. A good band of music, all Brazilians, played waltzes and marches alternately. I was told there were many distinguished persons, senators, representatives of the congress, &c., present.

The language generally spoken was Portuguese, though some few of the ladies, and many of the gentlemen, spoke French. I was not much struck with

the beauty of the ladies. The great charm thrown over the whole was the unaffected manners and *naïveté* exhibited by the whole company.

On the 27th of November the Relief arrived, after a passage of one hundred days, from the United States, the longest ever made. On requisitions being made for her stores, I was greatly and vexatiously disappointed to receive a report that they required a survey, as all were considered defective, including even the bread and flour. This report, after a careful survey by seven officers, proved to be true. I had been informed before taking command of the squadron that these provisions had been inspected, and understood them to be in good order, and that they would last over a year.

We redoubled our exertions, and the Relief was despatched at the earliest day possible, the 14th of December, in order to enable her to reach Orange Harbour, in Terra del Fuego, the place I had fixed upon as a rendezvous, supposing she would take at least fifteen days more than the other vessels to reach the place at the same time. The boats towed her down the harbour, and gave her a fair start.

Our repairs in Rio were extensive, particularly those on the Peacock. Among other things, the head of the mizzen-mast had to be cut off eighteen inches, in consequence of a defect in it, which it appeared had been filled up with rope-yarns and putty, and painted over, at her outfit. The defects about the vessel were so glaring, that in going to the high latitudes, it would have been impossible to secure the crew from great suffering and exposure. Even in the state in which the squadron was now put, I had every apprehension of the greatest disasters. The Peacock, particularly, was wholly unseaworthy with respect to such a cruise.

My object in giving these details is not to impute blame to any one, however satisfied I may be of the great neglect in all the outfits, but to let the country know what were the difficulties we had to encounter.

It is always difficult to calculate upon the delays that may occur in a foreign port, particularly when it is necessary to employ foreign workmen. Their hours, habits, and manner of working are so different from our own, that great patience is required in those who employ them. The manner in which the calkers of Rio work, would draw crowds around them in one of our own cities; to see many of them engaged on a single seam on the outside of the vessel, striking the mallet at a signal given by their leader or overseer with his whistle, is amusing. They are generally blacks (probably slaves), and the leader a white man. The impression made upon us all was, that they were an indolent set; yet they are said to understand their business well. I cannot, however, bear favourable testimony to their work; the calking of my ship was certainly badly done.

The uncertainty of the length of time I should be detained, rendered it impossible for me to allow long absences from the ship. I was anxious to have made some measurements of the Organ mountains, and that our parties should extend their researches beyond them to the Campos.

Dr. Pickering and Mr. Brackenridge succeeded in making the trip to the Organ mountains on a botanical excursion; but the outfits and duties con-

nected with the vessels and observations, made it impossible for me to spare any officers to make the measurement of their height, or to go myself. These gentlemen set out, having taken passage in the usual freight-boat (felucca rigged), for Estrella, embarking their horses and mules in another. These boats are not decked, and are of sufficient tonnage to make them safe and convenient freight-boats. They generally have four or five slaves with a padron to manage them.

A little incident that occurred to these gentlemen will show the difficulties to be encountered in obtaining specimens. They had observed for a few days a beautiful yellow flowering tree, that was very conspicuous in the forest. Believing that it could be easily come at, they made the attempt to reach it, but without success, finding it, instead of being low, a high and inaccessible tree. They then directed their steps to others, but were disappointed again. Determined not to be foiled in their pursuit, they again went off in search of others in sight; these, to their surprise, were on the opposite side of a river. Nothing daunted, Mr. Brackenridge crossed it, though deep, and endeavoured to scale the tree. What had appeared near the ground, now proved a tree of some sixty feet in height, with a smooth and slippery bark; and he returned to his companion empty-handed. Dr. Pickering next made the attempt. After crossing the stream with difficulty, he reached the desired object, and endeavoured to climb, but after reaching some forty feet, was obliged to acknowledge himself vanquished.

A few days before our departure, we made a trip to the top of the Corcovado. The naturalists who were of our party observed that almost a total change had taken place in the plants since their last visit, about a fortnight before. I took with me the necessary instruments to measure its height, and we all amused ourselves with collecting plants,

insects, lizards, &c. We took the road that turns off near Gloria, and even before we began to emerge from the city, several novel kinds of ferns were observed growing on the house-tops and walls. We soon entered coffee plantations, groves of bananas, tamarinds, mangroves, and orange trees. A vast variety of plants were pointed out to me by Mr. Brackenridge, among them the beautiful *vochysia*, with its splendid yellow blossoms, showing conspicuous among the rest. After a fatiguing walk we reached the top. The last quarter of a mile, or the last rise to its summit, causes one to become somewhat breathless in a hot day; but when the top is gained, it is worth all the labour of climbing, and amply repays for the exertion.

The whole of the magnificent harbour, the city and environs, lay beneath our feet. A bird's-eye view is had of every thing, grouped in the most pleasing variety; and nothing strikes one so forcibly as the white sandy beaches of Botofogo and Praya Grande, with the beautiful blue of the sea washing on them. The many lakes, the castellated peaks, and the variously-shaped, craggy, and broken hills, are all softened by the light and airy green vegetation, creeping up their sides so as to melt them almost into one. The day was beautifully clear, and the refreshing sea-breeze just what we could desire. To form an idea of the beauty of Rio and its environs, it is necessary to mount to the top of the Corcovado, or some high peak in its neighbourhood.

After finishing our observations, and fully satisfying ourselves with the beautiful scene, we descended to the Belle Rue, where we enjoyed a rest and lunch. We returned to the city by the way of the aqueduct late in the afternoon, all greatly delighted with our day's jaunt, which, beside the amusement, had proved a profitable one in the way of collections.

CHAPTER IV.

THE BRAZILS—RIO NEGRO, TERRA DEL FUEGO.

CHARACTER OF THE BRAZILIANS—CONSTITUTION OF THE EMPIRE—RULING PARTY—ELECTIVE REGENCY—ADMINISTRATION OF JUSTICE—ELECTIVE FRANCHISE—ARMY—NAVY—SCHOOLS—SLAVERY—FEELING TOWARDS FOREIGNERS—POPULATION—NATIONAL DEBT, REVENUE, AND EXPENDITURES—COMMERCE—EVENTS IN THE SQUADRON—DEPARTURE FROM RIO—PASSAGE TO RIO NEGRO—ARRIVAL THERE—GUACHOS—DESCRIPTION OF THE COUNTRY—RIVER AND TIDES—CLIMATE—VEGETATION—TRADE—HARBOUR—SQUADRON DRIVEN TO SEA—DANGERS IN SURVEYING—CONVICT SETTLEMENT—COMMUNICATION WITH BUENOS AYRES—DEPARTURE FROM RIO NEGRO—STATEN LAND—STRAITS OF LE MAIRE—APPEARANCE OF TERRA DEL FUEGO—ITS HARBOUR—MEETING WITH THE RELIEF—CAPTAIN KING'S SAILING DIRECTIONS—NATIVES—INTERCOURSE WITH THEM—ARRIVAL AT ORANGE HARBOUR.

DURING my stay at Rio, I had an opportunity of seeing several intelligent gentlemen who had long been residents of the country; I am indebted to them for much information relative to the political state of this empire. Brazil, though quiet at the time of our visit, will long be destined to outbreaks and alarms, either from local oppression or some slight political movements. The people, for the most part, take very little interest in politics, or in the general welfare of the state. As yet, their habits

make them averse to mental exertions, and they generally prefer their own ease, which precludes them from engaging in political excitement. They are not yet sufficiently advanced in civilization and education, so far as regards the mass of the population, to rise from the mental degradation which the policy of the mother country entailed upon them.

The Brazilians, from the character I have received of them, are very ceremonious and punc-

tilious, susceptible of flattery, suspicious yet courteous, selfish, cunning; assuming frankness and generosity, timid, unsteady in purpose, and without any large and comprehensive views. What is claimed from them as a right in a bold and confident manner, is readily yielded, while often through their ignorance they become presumptuous.

The people are further advanced in morals and intelligence than their government, but as yet they are not sufficiently enlightened to know their power. They are slow to act, and appear very patient under oppression. Long endurance of despotism has made them so.

The new constitution was adopted in 1825. This secured the legislative power from further interruption, and achieved a complete victory over the bayonets and tyranny of Don Pedro, by forcing him, through the threats of the people and his fears, to grant a more liberal constitution. Political freedom seems to have made rapid advancement through the freedom of the press; but the advantages of a free and frequent interchange of sentiments are almost entirely unknown. A long time will probably elapse before there will be any political struggle among them. They are prospering in their private concerns and contented, without any ambition to advance themselves in political knowledge.

Every exertion is making to give the young emperor a good education, and his talents are well spoken of.

The administration of justice is confided to two high tribunals, which are open to the public, and where causes are decided on appeal by a majority of the judges.

These tribunals are, first, the *relação*, of which there are two branches, one at Rio and the other at Bahia, each composed of eight judges. Second, the supreme tribunal of justice of twelve judges. The inferior courts are those for the trial of civil and criminal cases, an orphans' court, and a court and judge of findings and losings, the last of which is not yet abolished, however obsolete it may have become. Great corruption exists in them all, and no class of people are so unpopular as the judges. It is generally believed, and the belief is acted upon, that to obtain justice, all classes, including priests and laymen, lawyer and client, legislators and people, regents and ministers, must submit to great imposition; that it is next to impossible to recover a debt by law except through bribery. If a debtor has money or patronage, and refuses to pay, it is difficult to obtain the payment even of an acknowledged note of hand through the process of the law, and it generally takes years to accomplish.

It is, however, greatly to the praise of the Brazilians, that it is not often necessary to have recourse to law for this purpose. The greatest injustice occurs in the orphans' court; but the court of findings and losings is one of the most singular in this respect. It takes charge of all things lost and found, making it the duty of a person finding anything to deposit it with the judge. The loser, to prove property, must have three witnesses to swear that they saw him lose it, and three others that they saw the finder pick it up, otherwise it remains in deposit. To show the working of this system, a gentleman of Rio found a bank-note of

four hundred milrees (about 250 dollars). The owner went to him and claimed it, proving satisfactorily to the finder that the identical bank-note was his, upon which the finder gave it up. The judge of findings and losings heard of the circumstance, sent for him, and asked a statement of the case, which the finder unsuspiciously related. The judge praised his honourable conduct, and was punctiliously polite. The next day, however, he issued an order for the deposit of the money found; and because it was disregarded, the finder, a respectable foreign merchant, was arrested in the street and sent to prison, to be confined with common criminals. The jailer, however, having private apartments for those who could pay for them, he became his guest, and was preserved from the disgust of being a close prisoner, and the companion of degraded and depraved wretches. Before he could regain his liberty, he had to pay the amount found, the decision being the forfeiture of a like sum, together with the jailer's fees.

The justices of the peace for each district are elected by the people, four at a time, to serve as many years by turns, substituting one for the other, when sickness or other circumstances prevent either from serving. They have final judgments in amounts not exceeding sixteen milrees. In cases of civil process, they act as mediators to effect a compromise and reconcile difficulties. Their political attributes are to preserve the peace in case of riot or disorder among the people; and they have a right to call on the national guard or military police to aid them, who must act under their direction. There is no civil police, and no imprisonment for debt. Trial by jury was at first limited to political offences and violations of the liberty of the press, but it is now extended to criminal cases, and in some instances to civil suits. Sixty persons compose the jury, and forty are necessary to try causes. The *juiz de decrito* (judge of law) sits with them in court, acts as president, and applies the law to the cases the jury may decide. Jurymen serve for one year, and are chosen in the following manner. In each district the *vigairo* (vicar), a justice of the peace and a member of the municipality, select from a list of male parishioners those qualified in their judgment for jurymen, and submit the names to the municipality, who, assisted by the *vigairo* and justice of the peace, purge the list of such as may be considered improper persons. It is then officially communicated by the municipality to the justice of the peace, and posted up for public inspection in the office, and on the doors of the parish churches throughout the district.

To entitle any one to vote at an election, he must have an income of two hundred milrees per annum, from property, trade, labour, or employment of any kind. The *vigairo* sits with the judges at elections to decide on the qualifications of voters. Friars or members of religious fraternities are not entitled to a vote. Free blacks have all the civil rights, and vote at elections the same as white men.

The attorney-general of the nation is the accuser in all criminal cases. Criminals have the right of counsel.

It may be said that there is no standing army in Brazil, for the few troops do not merit that name. A military staff on a large scale is supported, with a large corps of military police, and a national guard. The national guard is organized by law,

and in it all males from eighteen to forty-five years of age are enrolled. They are equipped at their own cost, the nation furnishing arms and ammunition only. Detachments of this guard are on duty daily at the palace and public offices.

The navy is not effective; they want seamen, and are not likely to have any. A naval academy is established for the education of cadets or midshipmen. Here they enter at twelve years of age, receiving some of the first rudiments of education, and remain four years. After passing an examination, they are sent to sea, serve there four years, and if found qualified are then promoted to second lieutenants.

The military academy they enter later, remain seven years, passing through various courses of study, and if found competent, they are made lieutenants. From what I understood, the system of education is very imperfect.

Schools for educating the people have been established, and the female sex are now allowed to be educated.

Agriculture is extending; and the slave-trade, since the treaty with England, has been prohibited; but large numbers of slaves are still easily smuggled, by the connivance of the authorities, and although many are captured by British cruisers, yet it is said that more than one-half of the vessels escape, and smuggle the slaves into the small rivers and harbours, bribing the collectors, who permit them to be landed. After landing, the slaves are driven into the woods, where they are secreted until they are sold to the planters in the interior.

The slaves do not increase, as procreation is prevented as much as possible. The two sexes are generally locked up at night in separate apartments. The number of slaves imported into Rio and Bahia previous to the prohibition of the slave-trade in 1830, was about forty thousand a year for the former, and ten thousand for the latter, as follows:—

	RIO.	BAHIA.
1828 . . .	41,913 . . .	8,860 . . .
1829 . . .	40,015 . . .	12,808 . . .
1830 half year	29,777 . . .	8,588 . . .

About one-third of these were lost by death, leaving two-thirds as an accession to the labour of the country.

The number annually imported since 1830, contrary to law, is estimated at seven to ten thousand.

In speaking of the apprehension of a rise of the blacks in the provinces, the well-informed seemed to entertain no kind of fear of such an event. I was told that Bahia was the only point at which insurrections were ever likely to occur, and this was from the prevalence of the Minas slaves, who are very intelligent, and capable of forming organized bodies, which they occasionally have done. The slaves of the other provinces are of a mixed character, incapable of any organization, and from having been taken from different tribes on the coast, they are more or less hostile to each other, and would be opposed to any such union.

The Brazilians have great respect for foreigners who are not Portuguese. The latter are detested. They have a strong bias in favour of the United States and the American government generally. They think the time is approaching which will unite the people of this continent in a distinct

national policy, in contra-distinction to that of Europe, and in rivalry to it. They are vain of their own country and its institutions, and firmly believe that a high destiny awaits Brazil. The government, in its political relations with other countries, is seemingly confiding and liberal.

The population of the empire, taking the last returns of the members of the Chamber of Deputies as a guide, is estimated at five millions. No census has yet been taken, but it is thought to exceed this number. The scrutiny formerly exercised by the government into their domestic affairs, it is said, caused them to conceal the actual number of persons in their families. Of the above number, about two millions are slaves. The population of Rio in 1810 was estimated at forty thousand, in 1838 it was two hundred and fifty thousand.

The national debt of Brazil amounts to one hundred million milrees, or sixty million dollars. The revenue was about sixteen millions of dollars for 1838. It is derived principally from exports and imports.

The imports amounted to over twenty millions of dollars, but the amount of exports is variously stated. Coffee is the great staple, and more than one hundred and twenty millions of pounds were exported in 1838. It is derived from the central provinces, and the exports of it have more than doubled within the last ten years. The exports of the southern provinces are mostly confined to hides and tallow; those of the northern, to sugar, cotton, and tobacco.

The trade with the United States has greatly increased. Within the last few years, from one hundred and sixty to one hundred and seventy American vessels take and bring cargoes to and from the United States, and some foreign vessels are engaged in the same trade. The consumption of American flour in Rio and the neighbouring country has been, during the same year, about one hundred and twenty thousand barrels.

The delays in Rio had no effect upon the general health of the squadron, although I was fearful such might be the case, not only from the heat of the climate, but the copious draughts of aguardiente with which the foreigners supply the sailors.

On the 5th of January, 1839, the Porpoise was ordered to drop down near a slaver, on board of which it was reported some of our men had been smuggled, to form a part of her crew. She was boarded, and though the captain denied that they were on board, after a search two were found. One of them was a black, who had himself been a slave, yet he had been induced to enter for the purpose of carrying on this nefarious traffic. This was the brig Fox, and though undoubtedly fitted for a slaver, she sailed under English colours. It was given out that she was bound for New Zealand.

On the 6th of January, every thing being ready, we weighed anchor, and dropped down the harbour.

There is no difficulty, I may add, in beating out of the harbour of Rio, with a ship of any class, although vessels sail generally in the morning, with the land-breeze.

The winds proved light and variable during our passage to Rio Negro, and we occasionally experienced a south-westerly current, of little strength. On the 18th of January, when seventy-eight miles

distant from the mouth of the Rio la Plata, we passed through the discoloured water of that river. Its temperature was 4° less than that of the surrounding sea.

On the 25th we discovered the coast, which is a line of low sand-hills, without trees, and it exhibits little appearance of vegetation. In the evening we anchored off the bar, in eight fathoms water, just after which we experienced one of the remarkable squalls of this coast, that rose from the southward and westward: it was attended with much lightning and thunder; quantities of sand and insects were blown off from the land; but little rain fell. The barometer indicated this squall by a depression of two-tenths of an inch. The wind soon changed and brought fine weather, the thermometer falling six degrees during the change.

Having been led to believe we should be boarded by pilots on our anchoring off the bar, I was a good deal surprised to find none, and no endeavour making to board us, although the sea was quite smooth. The only appearance of inhabitants which we could see with our telescopes were a few horse-men, suspiciously reconnoitring us from the flag-staff on the top of the hill. I then concluded to despatch the Sea-Gull under lieutenant-commandant Ringgold into the river, for the purpose of having communication with the town, directing him to take the channel leading to the northward and westward, as shown by the only chart we had, whilst I followed in the Flying-Fish, with the scientific gentlemen; it proved to be the wrong one, and on the tide falling the schooners both grounded. Our situation was not the most agreeable; for, in the event of the sea rising, we should have been exposed to all the fury of the surf, without any escape from the numerous sand-bars. It became necessary, as the tide rose, to make the river. The Sea-Gull having got off, I put the scientific gentlemen on board of her, and ordered lieutenant-commandant Ringgold to proceed in, keeping in what the chart pointed out as the channel-way and deepest water. He finally succeeded in getting into the river, after thumping heavily over a sand-bar, with some fears on the part of the passengers, but without injury to the vessel, and anchored, after dark, about half a mile up the river.

During this time an amusing occurrence took place in the roadstead. I had directed lieutenant-commandant Ringgold, in case of accident or requiring aid, to make signal, that I might order boats at once to his assistance. When the night closed in, the signal was seen; when the requisite signal was made from the Flying-Fish to the different vessels to send boats to assist. The commanding officer's mind being somewhat impressed with an idea of the hostility of those on shore, he concluded the boats were required to repel an attack, and had them fully armed; in this state they were met in a short time exerting themselves to their fullest strength at the oars, to be in time to take part in the expected fray, and appeared greatly disappointed when it proved a false alarm, and that none was to take place.

Shortly after the schooner anchored, a voice was heard from the shore, ordering a boat to be sent immediately, when a party landed, but no one was found to receive them. Seeing a light at a distance, they proceeded towards it: it proved to be

the pilot's house, a long, low, barn-like building; but no inhabitants were visible, and none made their appearance until our party had taken a survey of the premises. The furniture was of a rude and scanty description; a table, bench, two or three bunks in one corner, and in another a number of arms, consisting of cutlasses, carbines, and pikes, in good order; in the others, various accoutrements. The two pilots, one an Englishman and the other a Frenchman, with a negro, then made their appearance, and unravelled the mystery, by informing them that the vessels had been mistaken for the French squadron, and much alarm had been created by our visit; they also said that the guard of about thirty Guachos were in ambush near where they landed, with the intention of cutting our party off; but hearing them speaking English, they found to their satisfaction that they were not French. They also stated that all the inhabitants living near the mouth of the river had fled to the town, and that most of the women and children in the town were hurrying off to the interior. They were likewise employed driving off the cattle, and preparing to fire the country, the usual mode of warfare, and were rejoiced to identify us as Americans.

All this accounted for the reconnoitring that we had observed, and our not being able to obtain a pilot. What still more alarmed them was the different vessels firing whilst surveying, and our making the attempt to force the passage in the small vessels.

The captain of the coast-guard now afforded all facilities, and a pilot for the schooner was sent on board to take her up the river, and horses and guides were furnished for a party to visit the town.

The next morning a detachment of lancers arrived from the governor, with orders not to allow our vessels to proceed up, and that the pilot should come on shore, which effectually put a stop to our plans; when lieutenant-commandant Ringgold determined to go by land.

It caused much alarm to the pilot, who entreated the officers to intercede with the governor in his behalf, and for that of the captain of the coast-guard, stating that their lives would be forfeited for having attempted to pilot a vessel without the governor's orders. After some delay, a party proceeded to Carmen, under the escort of Guachos, to wait on the governor or commandant. On their way they met with a cordial welcome from all they passed, as the minds of all were now entirely relieved from fear, and great delight was expressed at seeing the North Americans.

These Guachos are generally well made, tall, and muscular, with swarthy complexions, black eyes, and long hair, very large mustachios, and remarkably small feet. Their costume is a red striped shirt, and white drawers, large, loose, and fringed at the bottom of the leg, called *calzoncillas*. Their trousers (*chilipa*) consist of two yards of scarlet cloth, which is sometimes ornamented at the corners; to form this into any thing like a garment appeared strange enough; yet, when it is on the wearer, it has the appearance of a pair of Turkish trousers. The mode in which it is put on is to confine the ends round the waist by a girdle (*triando*), the middle of the cloth passing down between the legs, while the ends fall over the

girdle. On the head was worn a red conical cap surmounted by a tassel.

Their riding boots or leggings are made of the hide from the leg of a horse. This is stripped off and put on the leg while yet green, where it is suffered to dry, and remain until worn out. They fit very closely to the foot, like a stocking. The two largest toes of each foot were uncovered, for the convenience of putting them into the stirrup, which is only large enough to admit them. A long knife in the girdle completes the dress.

The Rio Negro is navigable for boats to the village of Chichula, two hundred miles from its mouth.

The distance across the country to Buenos Ayres is but five hundred miles, yet it requires fifteen days to communicate with it; the governor had received no advices or information for the last two months from that place. The route is very uncertain, owing to the hordes of hostile Indians.

Grain, fruit, and vegetables thrive well, and with proper industry might be produced in abundance.

The climate is delightful, and cold weather is seldom felt, although ice has occasionally been seen a quarter of an inch in thickness.

Bullocks and horses are the principal articles of trade; indeed they constitute the legal tender of the country. The former are worth from five to ten dollars, according to age; wild horses, two or three dollars, and if broken to the saddle, ten or fifteen.

The tariff of duties is the same as at Buenos Ayres, but the late reduction of thirty-three per cent. during the blockade did not extend to this place.

The Indians that are accustomed to visit this place (Carmen) for the purpose of war or trade are of four different tribes; viz., Pampas, Ancases, Tehuiliches or Teheulehes, and Chilenos. The two former occupy the territory to the north of the Rio Negro as far as the Rio Colorado. The Tehuiliches are from the mountains to the south, and the Chilenos from the south-west.

During the infancy of the settlement, and until of late years, these Indians were extremely troublesome, making descents upon the place, and ravaging the outposts, waylaying all who were not on their guard, killing them, and retreating rapidly on their wild steeds, with their booty, to the pampas and mountains. The Spaniards frequently retaliated, and by the superiority of their arms and discipline, inflicted summary punishment on them. The last attack of the Indians was made in 1832, when they met with such an overwhelming defeat, that they have not ventured to make another; yet the garrison is always kept in anxiety for fear of attacks.

The weapons usual in their warfare are a long lance and the *ballos*, such as is used in taking the ostrich and throwing cattle, which they use with great dexterity. This consists of a thong of hide, four feet in length, with a leaden ball at each end, which the horseman grasps in the middle, and gives the balls a rotary motion by whirling them above his head, then dashing on to the attack, he throws it when within range with unerring aim, and seldom fails to disable his enemy. The Indians who are most feared are the Chilenos. The Tehuiliches, notwithstanding their immense size, are considered little better than cowards.

All the information gained here tended to confirm the general impression that the Tehuiliches or Patagonians are above the ordinary height of men, generally above six feet; and the minister asserted that he had often seen them above seven English feet. We had not any personal opportunity to verify this statement, the Indians being only in the habit of visiting this post once a year, to obtain supplies, viz., in the month of March, at which time a vessel usually visits the place.

The few Indians who inhabit the huts or toldos on the opposite side of the river are converted, and are termed *Indios Mansos*; they are a mixture of all the tribes, and so much changed in habits and dress from their former condition and mode of life, that an accurate idea could not be formed of their natural character. They were none of them above the middle height; their limbs were usually full and well formed; their complexion a brownish copper, with coarse straight black hair, growing very low on the forehead; this is suffered to grow long, and hangs down on both sides of the face, adding much to the wildness of their appearance. Their foreheads are low and narrow towards the top, their eyes small, black, and deep set. Some were observed with their eyes set Chinese-like. The resemblance was somewhat increased by the width of the face, which was a particular characteristic. The nose is usually a little flattened at the root, and wide at the nostrils, the lips full, and the chin not prominent. The expressions of their countenance betoken neither intellect nor vivacity. The men were generally decked out in tawdry finery, partly after the Spanish fashion; the women had only the *chilipa* to cover their nakedness.

Of the Ancases very little appears to be known; they live towards the north, speak a peculiar language, and are inferior to the rest in stature.

The Chilenos are derived from the western side of the continent, and are predatory bands of the great Araucanian nation.

The Peulches, including the Pampas and Tehuiliches, Falkner, in his account of this country, describes as inhabiting the portion south of the Rio de la Plata, and to the east of the Cordilleras; they are scattered over the vast plains of the interior. Those to the north of the Rio Colorado are generally known under the name of the Pampas Indians; they call themselves *Chechehets*. Those to the south of that river are termed Tehuiliches; they inhabit the table-land between the Cordilleras and the desert plains of the coast.

These people are represented as of gigantic stature, and it is said by the residents, that those from the south are generally taller than those from any other part; and Indians are said to have been met with who are distinguished for their gigantic height and well-formed limbs; but this rests on vague authority.

The Guachos and Indians are of course good horsemen, being trained to it from their infancy. Indeed they may be said to live on horseback, and it is very seldom that they are seen to walk any distance, however short.

Their dress, although uncouth and ill-arranged, is comfortable, and picturesque when they are on horseback, particularly when at full speed in search of a bullock to lasso. The ease and nonchalance with which a Guacho mounts his steed, arranges

himself in the saddle, quietly trotting off, lasso in hand, to select his victim, and detach it from the herd; then the eager chase, the furious speed of the horse, the flying dress of the Guacho, with upraised arm whirling his lasso, the terror of the animal, the throw of the lasso, and instantaneous overthrow of the bullock, all the work of an instant, excited both our admiration and astonishment. Nothing can exceed the animation of both horse and rider on these occasions.

Mr. Waldron, our pursuer, made an endeavour to purchase some vegetables for the crews from an estancia on the river-side, of which an old Spaniard was the owner, thus affording him an opportunity of disposing of many of them; but the conditions were, that the articles must be on the beach in a few hours, which was ample time to have dug up an acre. As soon, however, as he learned these terms, he shrugged his shoulders, and declared the thing impossible, took down his guitar, seated himself in front of his house, and began to play a lively air, which his two sons accompanied with their voices.

The coast and the banks of the Rio Negro are composed of sand-hills, of from thirty to fifty feet in height, covered with a scattered growth of grass, which prevents the sand from blowing away. These gradually rise to the height of one hundred feet, except to the southward of the river, where the bank is perpendicular; at this height the ground stretches away in a level prairie, without a single tree to break the monotony of the scene, and affords a view as uninterrupted as the ocean.

The only verdure on the prairie is a small shrub, which when the lower branches are trimmed off serves a useful purpose. From an optical illusion (the effect of refraction), they appear, when thus trimmed, as large as an ordinary-sized apple-tree, and one is not a little surprised to find them, on a near approach, no higher than the surrounding shrubs, four or five feet. Shrubs are trimmed in this manner at distances of about half a mile from each other, and are used as guide-posts on the prairie. A similar optical effect is spoken of by travellers on the steppes of Russia.

Game is most plentiful, consisting of deer, guanaco, and cavia, cassowaries, partridges, bustards, ducks, &c. Armadillos were common, and the ostrich was frequently seen; porcupines are said also to be found. The cavia were seen running about in single file, with a sort of halting gait.

The width of the river is less than a third of a mile; it has a rapid current, and a large body of water is carried by it to the ocean. The ordinary tide is about eight feet rise, and the spring tides fourteen feet. The current is mostly downward, although the tide is felt about ten miles above its mouth. The ebb sets off shore some three or four miles, and may be known by the discoloration of the water, which just without the bar is comparatively fresh. The depth at high water on the bar is two and a half fathoms, and the bar is a changing one.

No springs were observed in the vicinity, or any trace of running water, except in the river. The water from the rains collects in the depressions, and forms large ponds, covering acres of ground, but only a few inches in depth.

The time of our visit corresponded in season to our midsummer months, and the mean temperature

was found to be 73°. The winters are represented as very mild; snow does fall, but it disappears in a few hours. Ice is seldom seen, though frosts appear to be frequent in the winter. January, February, March, and April, are the least tempestuous months.

The vegetation of the uplands bears the marks of long-continued droughts, in an absence of trees, and the roots of plants penetrating vertically. The stunted appearance of the shrubs, branching from their base, their branches dense, rigid, and impenetrable, usually growing into spines; the smallness of the leaves, and their texture which is dry, coriaceous, and hardly deciduous; together with the general brown aspect of the landscape, all denote a vegetation adapted to endure or escape drought.

There was formerly some trade here with Boston and New York, in hides, horns, bones, and tallow, in exchange for cotton and woollen goods of a warm fabric, hardware, crockery, boots and shoes, a few articles of furniture, spirits, and tobacco, all of which are bartered at an enormous profit. Considerable quantities of salt are shipped round to Buenos Ayres. Vessels discharging or taking in a cargo here, pay twelve and a half cents per ton. Vessels stopping without discharging pay half duty; vessels for refreshments are permitted to remain twenty-five days free of duty, after that time they pay half duty. This duty includes pilotage and all other charges; but the governor seems to have the power to exact the full duty whenever he thinks proper.

El Carmen may be termed a convict settlement; for culprits and exiles are sent here from Buenos Ayres. The garrison is composed of about two hundred soldiers, principally African and Brazilian slaves brought here during the Banda Oriental war. Among them we found a person who called himself an American, from Rhode Island, by name Benjamin Harden, junior, who was desirous of claiming our protection. He was of small stature, slender make, and a light complexion, with a mild expression of countenance, and about thirty years of age. His story was, that he had been by chance in Buenos Ayres at the time when the government was in want of troops, and that he was seized and compelled to enlist. On inquiring, however, of the governor, it proved that he had been engaged in a riot at Buenos Ayres, in which he had killed two or three men, and committed other outrages, for which he had been condemned to death, but on the intercession of a friend, the sentence was commuted to that of exile as a soldier at this place. His further history is, that not long since he formed the plan of deserting with another convict, by seizing an English trading vessel, in the absence of the captain and part of the crew, and making off with her, which he was fully able to accomplish, being an excellent sailor. The night however before the day fixed on for the execution of this plan, he got intoxicated, discovered the whole design, and received the severe punishment of twelve hundred lashes, at three different times.

On the morning of the departure of the schooner, he effected his escape from the town, and swam off to the schooner. He was recognised by an officer, who knew his history in part, namely, that he had become a robber and a murderer, and had been an outcast from his father's house for fifteen years.

He was told that he could not be received on board, and a boat landed him again.

On the 3rd of February we got under way, and were glad to leave an exposed and unpleasant anchorage.

On the 4th and 5th we experienced a heavy sea from the southward, with much wind.

On the 6th the weather began to moderate, and the wind to haul to the westward. Shortly afterwards we had strong winds accompanied with rain.

On the 8th we had a sudden fall of the barometer to 29.500 in., but without any change in the weather except fog and mist. On the 11th the wind hauled to the south-west, when the barometer began to rise, and the weather to clear off. On the 12th the barometer again fell, and in a few hours we had heavy squalls, with hail and rain, the weather becoming sensibly colder. The next morning we made Staten Land, and soon afterwards Cape St. Diego, Terra del Fuego. The land was broken, high, and desolate. The Straits of Le Maire were before us: we were just in time to take the tide, and with a fair wind we sailed rapidly through the strait, passing its whirls and eddies, now quite smooth, but in a short time to become vexed and fretted by the returning tide. The squadron glided along with all its canvas spread to the breeze, scarcely making a ripple under the bows. The day was a remarkably fine one for this climate, and the sight beautiful, notwithstanding the desolate appearance of the shores.

I cannot see why there should be any objection to the passage through the Straits of Le Maire, as it gives a vessel a much better chance of making the passage round the Cape quickly. No danger exists here that I know of. A vessel with the tide will pass through in a few hours. As for the "race and dangerous sea," I have fully experienced it in the Porpoise on the side of Staten Land; and am well satisfied that any vessel may pass safely through it, at all times and in all weathers, or if not so disposed, may wait a few hours until the sea subsides and the tide changes. We were only three hours in passing through. We entered the Straits with studding-sails set, and left them under close-reefed topsails.

The coast of Terra del Fuego presents the same general character throughout, of high, broken, and rugged land, which appears of a uniform elevation of about one thousand or fifteen hundred feet, with here and there a peak or mountain covered with snow, rising to some four or five thousand feet. The whole wears a sombre and desolate aspect. It may be said to be iron-bound, with many high and isolated rocks, that have become detached from the land apparently by the wear of ages. Numerous unexpected indentations occur all along the coast, many of them forming harbours for small vessels, and some of them very safe ones.

On Captain King's report of Orange Harbour, I had determined to make that our place of rendezvous previous to our first antarctic trip, and accordingly all the vessels were ordered to proceed thither. We had his directions, although we were without the chart. I felt confident I might repose full reliance in them, from his well-known ability; and I now offer an acknowledgment of their value and general accuracy.

The channels formed by the islands are deep,

with no anchorage except in the coves near the rocks; but a vessel is generally safe in passing through, as there are no dangers but those which show themselves, and wherever rocks are, kelp will be found growing upon them. To pass through the kelp without previous examination is not safe. It borders all the shores of the bays and harbours, and effectually points out the shoal water.

It was my intention to pass within or to the north of the Hermit Islands into Nassau Bay, but the wind did not permit our doing so. This bay forms a large indenture in the southern coast of Terra del Fuego, a few miles to the northward of Cape Horn; it is about thirty miles east and west, by eight miles north and south, and is somewhat protected from the heavy seas by the Hermit Islands. Around the bay are found some harbours sheltered by small islands, and surrounded by precipitous rocky shores, with occasionally a small ravine forming a cove, into which streams of pure water discharge themselves, affording a safe and convenient landing-place for boats.

In passing the Cape, the weather was delightful. We sailed within two miles of this dreaded promontory, and could not but admire its worn and weather-beaten sides, that have so long been invested with all the terrors that can beset sailors. Here we first encountered the long swell of the Pacific, but there was scarcely a ripple on its surface. Although the landscape was covered with snow, the lowest temperature we had yet experienced was 40° Fahrenheit.

The Porpoise, just before night, made signal that she wished to speak us, and sent on board a tub filled with a large medusa, for examination by the naturalists. Its dimensions were nine feet in circumference; the brachiae seven feet long. It proved to be the *acalopha medusa pelagia* of Cuvier.

We continued beating into the passage between the Hermit Islands and False Cape Horn, and found great difficulty in passing Point Lort, from the very strong outward set of the tide, which we found to run with a velocity of five miles an hour. We were not able to make way against it, though the log gave that rate of sailing. After beating about in this channel a long and dark night, with all hands up, we made sail at daylight, and on the 17th of February, 1839, at half-past 6 A.M. anchored in Orange Harbour. Here we found the Relief and tenders, all well.

The Relief had an opportunity of proving the positions and sailing directions of Captain King, R.N., and it affords me great pleasure to say that all his observations tend to show the accuracy of the positions, and the care with which that officer has compiled his sailing directions.

No navigator frequenting this coast or passing round Cape Horn should be without the sailing directions for East and West Patagonia, and he will prize them as highly valuable after he has once used them. The admirable surveys and exertions of this officer and those under him on this coast entitle him to the rewards of his country, as well as the thanks of the civilized world.

The day the crew of the Relief landed, no natives were seen, but many marks of a recent visit were evident on the beach and in the deserted huts. On the morning of the 22nd, at daylight, the natives appeared on the beach, shouting to them to land.

Lieutenant-Commandant Long delayed his departure for a few hours, and landed with a number of the officers. As the boats approached the shore, the natives renewed their shouting, and advanced towards them on their landing without fear, exhibiting a pleasant air, and apparently with every feeling of confidence: they were all unarmed. An old man, who was the chief, came forward to salute them, first by patting his own breast several times, and then that of each individual of the party, making use of the word *cu-char-lie*, dwelling on the first syllable, and accenting the last, in a whining tone of voice. The meaning of *cu-char-lie* it was impossible to divine, for it was used for every thing. After this ceremony they returned to the thicket, and brought forth their bows and arrows. These people were admirable mimics, and would repeat all kinds of sounds, including words, with great accuracy: the imitation was often quite ridiculous. They were naked, with the exception of a guanaco-skin, which covered them from the shoulders to the knees.

The party of natives were seventeen in number, and with a few exceptions they were above the European height. The chief, who was the oldest man among them, was under fifty years of age, and of comparatively low stature; his son was one of the tallest, and above six feet in height. They had good figures and pleasant-looking countenances, low foreheads, and high cheek-bones, with broad faces, the lower part projecting; their hair was coarse, and cut short on the crown, leaving a narrow border of hair hanging down; over this they wore a kind of cap or band of skin or woollen yarn. The front teeth of all of them were very much worn, more apparent, however, in the old than in the young. On one foot they wore a rude skin sandal.

Many of them had their faces painted in red and black stripes, with clay, soot, and ashes. Their whole appearance, together with their inflamed and sore eyes, was filthy and disgusting. They were thought by the officers more nearly to approach to the Patagonians than any other natives, and were supposed to be a small tribe who

visit this part of Terra del Fuego in the summer months; they were entirely different from the Petcherais, whom we afterwards saw at Orange Harbour.

None of their women or children were seen, but they were thought to be not far distant in the wood, as they objected to any of our people going towards it, and showed much alarm when guns were pointed in that direction. They seemed to have a knowledge of fire-arms, which they called *eu*, or spirit; and *kai-eu*, which they frequently uttered with gestures, was thought to indicate their Great Spirit, or God.

They had little apparent curiosity, and nothing seemed to attract or cause them surprise; their principal characteristic seemed to be jealousy. Though they are a simple race, they are not wanting in cunning; and it was with great difficulty that they could be prevailed upon to part with their bows and arrows in trade, which they however did, after asking permission from their chief: this was always necessary for them to obtain before closing a bargain. They have had communication frequently before with Europeans; pieces of many articles of European manufacture were seen in their possession, such as glass-beads, &c. They refused tobacco, whiskey, bread, or meat, and were only desirous of getting old iron, nails, and pieces of hoop-iron.

Their food consists principally of fish and shell-fish. Their fishing apparatus is made of the dorsal fin of a fish, tied to a thin slip of whalebone, in the form of a barb; this serves as a good hook, and with it they obtain a supply of this food. Their arms consisted altogether of bows and arrows. The natives had the common dog, which they seemed to prize much.

Mr. Rich employed his time in botanical researches: the prominent plants were *berberes*, *winteria*, *vaccinium*, *andromeda*, *compositæ*, (some woody,) *cruciferae*, *umbelliferae*, &c. A number of these were just putting forth their flowering buds. *Scurvy-grasses* and wild *celery* abounded.

On the 17th of February, as before stated, the Relief was joined by the rest of the squadron.

CHAPTER V.

TERRA DEL FUEGO. SOUTHERN CRUISE.

ORANGE HARBOUR—PLAN OF THE SQUADRON'S OPERATIONS—NATIVES—THEIR APPEARANCE—THEIR HUTS—THEIR TALENT FOR MIMICRY—VISIT TO THEIR HUTS—THEIR FOOD—DEPARTURE OF PORPOISE—WHALE-SHIP—HEIGHT OF WAVES—KING GEORGE'S ISLAND—O'BRIEN'S AND ASPLAND'S ISLANDS—PALMER'S LAND—ADVENTURE ISLETS—SEA-GULL ORDERED TO RETURN—RETURN OF THE PORPOISE—ELEPHANT ISLAND—GOOD SUCCESS BAY—BOAT DETAINED—ATTEMPT TO RELIEVE—ACCIDENT—FURTHER ATTEMPT TO RELIEVE THE PARTY—PORPOISE COMPELLED TO PUT TO SEA—CAPE ST. DIEGO—RETURN TO GOOD SUCCESS BAY—PARTY JOIN—THEIR TRANSACTIONS—LEAVE GOOD SUCCESS BAY—NASSAU BAY—NATIVES—ORANGE HARBOUR—SEA-GULL—DECEPTION ISLAND—TEMPERATURE—VISIT TO CRATER—FORCE OF WIND—ARRIVAL AT ORANGE HARBOUR—SENT IN SEARCH OF LAUNCH—LOSS OF THAT BOAT—RETURN OF SEA-GULL—AGAIN SAILS FOR WOLLASTON'S ISLAND—BAILY ISLAND—ARRIVAL OF FLYING-FISH.

ORANGE HARBOUR is on the western side of Nassau Bay, separated and protected from it by Burnt Island. It is nearly land-locked, and is the safest harbour on the coast. The hills on each side, after several undulations, rise into conical peaks, and

the naked rock is every where broken into a jagged outline, with no creeping plants to soften or take off its harshness. Every thing has a bleak and wintry appearance, and is in excellent keeping with the climate; yet the scenery about it is pleas-

ing to the eye, bounded on all sides by undulating hills, which are covered with evergreen foliage. Distant mountains, some of which are capped with snow, shooting up in a variety of forms, seen beyond the extensive bays, form a fine background. From the vessels, the hills look like smooth downs, and if it were not for the inclemency and fitfulness of the weather, they might be contemplated with some pleasure.

The hills are covered with dense forests of beech, birch, willow, and winter-bark. Some of the former trees are forty or fifty feet high, having all their tops bent to the north-east by the prevailing south-west winds. They are remarkably even as to height, having more the look, at a distance, of heath than of forest trees.

The whole coast has the appearance of being of recent volcanic rocks, but all our investigations tended to prove the contrary. We no where found any cellular lava, pumice, or obsidian, nor was there any granite or other primitive rock seen, though reported by Captain King as existing. The rock was trachytic, or of trap formation, apparently having undergone more or less action by fire.

Immediately on our arrival at Orange Harbour, active preparations were made for a short cruise to the antarctic. Although the season was late, I at least anticipated getting some experience among the ice; and I supposed that the lateness of the season would have allowed it to detach itself from the shores of Palmer's Land, and would permit as near an approach as possible to its main body or barrier, in the vicinity of Cook's Ne Plus Ultra.

Agreeably to my instructions, such disposition was made of the squadron as seemed best calculated to obtain the necessary results in the different departments. Captain Hudson, with the Peacock, and the Flying-Fish, under Lieutenant Walker, as a tender, were ordered to the westward, as far as the Ne Plus Ultra of Cook. I went in the Porpoise, Lieutenant-Commandant Ringgold, accompanied by the Sea-Gull, Lieutenant Johnson, to pass to the south, for the purpose, if possible, of exploring the south-east side of Palmer's Land, or, should an opportunity offer, of proceeding further south. The Relief, Lieutenant-Commandant Long, was ordered into the Straits of Magellan, through the Brecknock Passage and Cockburn's Sound, with part of the gentlemen of the scientific corps, in order to enlarge our field of operations. Mr. Peale volunteered to go south in the Peacock.

The Vincennes was safely moored in Orange Harbour, and left under the charge of Lieutenant Craven, to carry on the investigations, surveys, &c. &c. Messrs. Couthouy and Drayton, of the scientific corps, remained in the Vincennes. Lieutenant Carr was put in charge of the observatory.

In making the changes necessary for this cruise to the south, I regretted extremely being compelled, from the want of junior officers, to supersede temporarily both Passed Midshipmen Reid and Knox in command of the two tenders. These officers had not their superiors in the squadron for the situations they occupied; but the duty I owed the expedition and country compelled me to do it, and also to refuse their application to be transferred from the tenders, for I was well satisfied, as long as they were on board, the vessels would be well taken care of. I had a very high opinion of Mr.

Reid, from the experience I had had of him; and as respects Mr. Knox, I feel it my duty here to acknowledge how much the expedition is indebted to him for his services on board the Flying-Fish. He not only had the ability, but the necessary perseverance and ambition, to perform his duties well. So arduous were they, that I was for a time obliged to transfer him to my ship on account of his health. The moment his health permitted it, he was again put in command of the Flying-Fish, to the great advantage of the service. In according thus much to his industry, ability, and zeal, I am well satisfied that I but speak the opinion of every officer in the squadron.

The vessels were well supplied with fuel, provisions, and various antiscorbutics, for ten months. A spot for the observatory was fixed upon, and orders left for the duties to be performed during the absence of the squadron.

During our stay, we had at various times visits from the natives. They were all at first very shy, but after they found our friendly disposition towards them, they became more sociable and confiding.

Before our departure from Orange Harbour, a bark canoe came alongside with an Indian, his squaw, and four children. The tribe to which they belonged is known by the name of the Petcherai Indians. They were entirely naked, with the exception of a small piece of seal-skin, only sufficient to cover one shoulder, and which is generally worn on the side from which the wind blows, affording them some little shelter against its piercing influence.

They were not more than five feet high, of a light copper colour, which is much concealed by smut and dirt, particularly on their faces, which they mark vertically with charcoal. They have short faces, narrow foreheads, and high cheekbones. Their eyes are small and usually black, the upper eyelids in the inner corner overlapping the under one, and bear a strong resemblance to those of the Chinese. Their nose is broad and flat, with wide-spread nostrils, mouth large, teeth white, large, and regular. The hair is long, lank, and black, hanging over the face, and is covered with white ashes, which gives them a hideous appearance. The whole face is compressed. Their bodies are remarkable from the great development of the chest, shoulders, and vertebral column; their arms are long, and out of proportion; their legs small and ill-made. There is in fact little difference between the size of the ankle and leg; and when standing, the skin at the knee hangs in a large loose fold. In some, the muscles of the leg appear almost wanting, and possess very little strength. This want of development in the muscles of the legs is owing to their constant sitting posture, both in their huts and canoes. Their skin is sensibly colder than ours. It is impossible to fancy anything in human nature more filthy. They are an ill-shapen and ugly race. They have little or no idea of the relative value of articles, even of those that one would suppose were of the utmost use to them, such as iron and glass-ware. A glass bottle broken into pieces, is valued as much as a knife. Red flannel torn into stripes, pleases them more than in the piece; they wound it around their heads, as a kind of turban, and it was amusing to see their satisfaction at this small acquisition.

The children were quite small, and nestled in the bottom of the canoe on some dry grass. The woman and eldest boy paddled the canoe, the man being employed to bail out the water and attend to the fire, which is always carried in the bottom of the canoe, on a few stones and ashes, which the water surrounds.

Their canoes are constructed of bark, are very frail, and sewed with shreds of whalebone, seal-skin, and twigs. They are sharp at both ends, and are kept in shape as well as strengthened by a number of stretchers lashed to the gunwale.

These Indians seldom venture outside the kelp, by the aid of which they pull themselves along; and their paddles are so small as to be of little use in propelling their canoes, unless it is calm. Some of the officers thought they recognised a party on the Hermit Islands that had been on board ship at Orange Harbour. If this was the case, they must have ventured across the Bay of Nassau, a distance of some ten or twelve miles. This, if correct, would go to prove that there is more intercourse among them than their frail barks would lead one to expect.

Their huts are generally found built close to the shore, at the head of some small bay, in a secluded spot, and sheltered from the prevailing winds. They are built of boughs or small trees, stuck in the earth, and brought together at the top, where they are firmly bound by bark, sedge, and twigs. Smaller branches are then interlaced, forming a tolerably compact wicker-work, and on this, grass, turf, and bark are laid, making the hut quite warm, and impervious to the wind and snow, though not quite so to the rain. The usual dimensions of these huts are seven or eight feet in diameter, and about four or five feet in height. They have an oval hole to creep in at. The fire is built in a small excavation in the middle of the hut. The floor is of clay, which has the appearance of having been well kneaded. The usual accompaniment of a hut is a conical pile of mussel and limpet shells opposite the door, nearly as large as the hut itself.

These natives are never seen but in their huts or canoes. The impediments to their communication by land are great, growing out of the mountainous and rocky character of the country, intersected with inlets deep and impassable, and in most places bounded by abrupt precipices, together with a soil which may be termed a quagmire, on which it is difficult to walk. This prevails on the hills as well as in the plains and valleys. The impenetrable nature of the forest, with the dense undergrowth of thorny bushes, renders it impossible for them to overcome or contend with these difficulties. They appear to live in families, and not in tribes, and do not seem to acknowledge any chief.

On the 11th of March three bark canoes arrived, containing four men, four women, and a girl about sixteen years old, four little boys and four infants, one of the latter about a week old, and quite naked. The thermometer was at 46° Fahrenheit. They had rude weapons, viz. slings to throw stones, three rude spears, pointed at the end with bone, and notched on one side with barbed teeth. With this they catch their fish, which are in great quantities among the kelp. Two of the natives were induced to come on board, after they had been alongside for upwards of an hour, and received

many presents, for which they gave their spears, a dog, and some of their rude native trinkets. They did not show or express surprise at any thing on board, except when seeing one of the carpenters engaged in boring a hole with a screw-awger through a plank, which would have been a long task for them. They were very talkative, smiling when spoken to, and often bursting into loud laughter, but instantly settling into their natural serious and sober cast.

They were found to be great mimics, both in gesture and sound, and would repeat any word of our language, with great correctness of pronunciation. Their imitations of sounds were truly astonishing. One of them ascended and descended the octave perfectly, following the sounds of the violin correctly. It was then found he could sound the common chords, and follow through the semitone scale, with scarcely an error. They have all musical voices, speak in the note G sharp, ending with the semitone A, when asking for presents, and were continually singing.

Their mimicry became at length annoying, and precluded our getting at any of their words or ideas. It not only extended to words or sounds, but actions also, and was at times truly ridiculous. The usual manner of interrogating for names was quite unsuccessful. On pointing to the nose, for instance, they did the same. Any thing they saw done they would mimic, and with an extraordinary degree of accuracy. On these canoes approaching the ship, the principal one of the family, or chief, standing up in his canoe, made a harangue. Although they have been heard to shout quite loud, yet they cannot endure a noise, and when the drum beat, or a gun was fired, they invariably stopped their ears. They always speak to each other in a whisper. The men are exceedingly jealous of their women, and will not allow any one, if they can help it, to enter their huts, particularly boys.

The women were never suffered to come on board. They appeared modest in the presence of strangers. They never move from a sitting posture, or rather a squat, with their knees close together, reaching to their chin, their feet in contact, and touching the lower part of the body. They are extremely ugly. Their hands and feet were small and well-shaped, and from appearance they are not accustomed to do any hard work. They appear very fond and seem careful of their young children, though on several occasions they offered them for sale for a trifle. They have their faces smutted all over, and it was thought, from the hideous appearance of the females, produced in part by their being painted and smutted, that they had been disfigured by the men previous to coming alongside. It was remarked that when one of them saw herself in a looking-glass, she burst into tears, as Jack thought from pure mortification.

The men are employed in building the huts, obtaining food, and providing for their other wants. The women were generally seen paddling their canoes.

When this party of natives left the ship and reached the shore, the women remained in their canoes, and the men began building their temporary huts; the little children were seen capering quite naked on the beach, although the thermometer was at 40°. On the hut being finished, which occupied

about an hour, the women went on shore to take possession of it. They all seemed quite happy and contented.

Before they left the ship, the greater part of them were dressed in old clothes, that had been given to them by the officers and men, who all showed themselves extremely anxious "to make them comfortable." This gave rise to much merriment, as Jack was not disposed to allow any difficulties to interfere in the fitting. If the jackets proved too tight across the shoulders, which they invariably were, a slit down the back effectually remedied the defect. If a pair of trousers was found too small around the waist, the knife was again resorted to, and in some cases a fit was made by severing the legs. The most difficult fit, and the one which produced the most merriment, was that of a woman to whom an old coat was given. This she concluded belonged to her nether limbs, and no signs, hints, or shouts, could correct her mistake. Her feet were thrust through the sleeves, and after hard squeezing she succeeded in drawing them on. With the skirts brought up in front, she took her seat in the canoe with great satisfaction, amid a roar of laughter from all who saw her.

Towards evening, Messrs. Waldron and Drayton visited their huts. Before they reached the shore, the natives were seen making a fire on the beach, for their reception, evidently to avoid their entering their huts.

On landing, one of the men seemed anxious to talk with them. He pointed to the ship, and tried to express many things by gestures; then pointed to the south-east, and then again to the ship, after which clasping his hands, as in our mode of prayer, he said, "Eloah, Eloah," as though he thought we had come from God.

After a little time, they gained admittance to the hut. The men creeping in first, squatted themselves directly in front of the women, all holding out the small piece of sealskin to allow the heat to reach their bodies. The women were squatted three deep behind the men, the oldest in front nestling the infants.

After being in the hut, Mr. Drayton endeavoured to call the attention of the man who had made signs to him before entering, to know whether they had any idea of a Supreme Being. The same man then put his hands together, repeating as before, "Eloah, Eloah." From his manner, it was inferred that they had some idea of God or a Supreme Being.

Their mode of expressing friendship is by jumping up and down. They made Messrs. Waldron and Drayton jump with them on the beach, before entering the hut, took hold of their arms, facing them, and jumping two or three inches from the ground, making them keep time to a wild music of their own.

All our endeavours to find out how they ignited their fire proved unavailing. It must be exceedingly difficult for them to accomplish, judging from the care they take of it, always carrying it with them in their canoes, and the danger they thus run of injuring themselves by it.

Their food consists of limpets, mussels, and other shell-fish. Quantities of fish, and some seals, are now and then taken among the kelp, and with berries of various kinds, and wild celery, they do not want. They seldom cook their food much.

The shell-fish are detached from the shell by heat, and the fish are partly roasted in their skins, without being cleaned.

When on board, one of them was induced to sit at the dinner-table; after a few lessons, he handled his knife and fork with much dexterity. He refused both spirits and wine, but was very fond of sweetened water. Salt provisions were not at all to his liking, but rice and plum-pudding were agreeable to his taste, and he literally crammed them into his mouth. After his appetite had been satisfied, he was in great good humour, singing his "Hey meh leh," dancing and laughing. His mimicry prevented any satisfactory inquiries being made of him relative to a vocabulary.

Some of the officers painted the faces of these natives black, white, and red: this delighted them very much, and it was quite amusing to see the grimaces made by them before a looking-glass.

One of these natives remained on board for upwards of a week, and being washed and combed, he became two or three shades lighter in colour. Clothes were put on him. He was about twenty-three years of age; and was unwell the whole time he was on board, from eating such quantities of rice, &c. His astonishment was very great on attending divine service. The moment the chaplain began to read from the book, his eyes were riveted upon him, where they remained as long as he continued to read. At the end of the week he became dissatisfied, and was set on shore, and soon appeared naked again. It was observed on presents being made, that those who did not receive any began a sort of whining cry, putting on the most doleful-looking countenances imaginable.

They are much addicted to theft, if any opportunity offers. The night before they left the bay, they stole and cut up one of the wind-sails, which had been scrubbed and hung up on shore to dry.

Although we had no absolute proof of it, we are inclined to the belief that they bury their dead in caves.

There is a black-coloured moss that covers the ground in places, giving it the appearance of having been burnt. Many small ponds are met with, as though the peat had been dug up from the place, and the holes filled with water. There is great plenty of scurvy-grass and wild celery close to the beach.

At Orange Harbour the tide was found to have four feet rise and fall. High water, full and change, at 4 P.M. Among the Hermit Islands it seems to be affected by the winds in the offing. The flood sets to the east.

On the 25th of February, 1839, having completed the arrangements for the southern cruise, and prepared instructions for the continuance of the duties of the expedition in case of my being detained among the ice, the signal was ordered to be made for the vessels to get under way, when I joined the Porpoise. Very many of my crew were desirous of following me, and expressed regrets and disappointment that the Vincennes was not going south. All I could do, was to promise them enough of antarctic cruising the next year, and I believe they are now all satisfied that I kept my word. About 7 A.M. we left the harbour, with a light breeze from the north, having the Sea-Gull, of which vessel Lieutenant Johnson was in charge, in com-

pany. On passing the other vessels of the squadron, we received three hearty cheers, which were duly returned.

At the month of the harbour, Captain Hudson and the few officers who had accompanied us, took their leave. I must own at that moment I felt greatly depressed, for I was well aware that we had many, very many dangers to encounter before meeting again. But there is a feeling produced by the kind of service on which we were engaged, that gives a stout heart, braces it for meeting almost every emergency that may happen, and causes one to look forward with hope to overcome the difficulties that may lie in the path. After a short time we saw the Peacock and Flying-Fish under sail, following us.

The wind continued light, with fine weather, until the afternoon. The whole scenery around us was viewed to great advantage, under a mild state of the atmosphere, taking away from it the usual gloomy aspect which a sky, overcast and boisterous, gives. A dense bank of cumuli in the south-west foretold that we were not long to enjoy such moderate weather. About 4 p.m. a heavy squall struck us, which soon took us clear of the islands, on our course to the southward.

On the 26th we discovered a sail, which proved to be the whale-ship *America*, from New Zealand, bound to New York, and afforded us an opportunity of writing home, which we gladly availed ourselves of. The master of the *America* informed me that he had experienced constant heavy winds, and had been thirty-five days from New Zealand; that the ship was very leaky, but having a full cargo of three thousand eight hundred barrels of oil, he was in great spirits. I have seldom seen at sea a more uncombed and dirty set of mariners than his crew. How they preserve any tolerable state of health I know not; and it is not at all surprising that the ravages of scurvy should be felt on board of some vessels belonging to the whaling fleet, if this is the usual state in which they are kept.

After delivering our letters, we bore away to the south-east, the wind inclining to the north-west and blowing heavy, with a high and remarkably regular sea following. This afforded me an opportunity I had long desired, for making observations to determine the height of the waves, together with their width and velocity. It is obviously very difficult to do this with correctness. I shall therefore state the means which I adopted, in order that it may be perceived what reliance is to be placed on the results.

The Porpoise was directly ahead of the *Seagull*, and but two waves apart; the rate of sailing was about eight knots an hour, both vessels being apparently very steady. In heaving the log, I found that the ship, in drawing in the line, was, when on the top of the next wave astern, distant by line three hundred and eighty feet, equal to one-sixteenth of a mile, and the schooner being on the next wave, was twice the distance, or one-eighth of a mile. The time occupied for a wave to pass from the schooner to the brig was thirteen seconds, taking the mean of many trials, from which none varied more than a second and a half. This gave about twenty-six and a half miles in an hour for their apparent progressive motion. In order to get their height, I took the opportunity when the schooner was in the trough of the sea, and my eye

on board the Porpoise in the horizon, to observe where it cut the mast.

This gave me thirty-two feet. The waves ran higher and more regular on this occasion than I have seen them at any other time during the cruise.

We had many albatrosses hovering about, and at times resting as it were immovable in the storm, some gray petrels, and Cape pigeons in numbers. The weather becoming thick, and the temperature of the water having fallen to 32°, I deemed it prudent to heave-to during the darkness.

At daylight on the 1st of March we had snow in flurries, and the first ice-islands were made. They excited much curiosity, and appeared to have been a good deal worn, as though the sea had been washing over them for some time. They were of small size in comparison with those we afterwards saw, but being unused to the sight, we thought them magnificent. At noon we made land, which proved to be Ridley's Island. It was high, broken, and rugged, with the top covered with snow. The rocks had a basaltic appearance, and many were detached from the main body of the island, with numerous high pinnacles, very much worn by the sea. The surf was too great to attempt a landing for the purpose of procuring specimens. As we closed in with the land, we lowered a boat and tried the current, which was found setting to the north-north-west, two fathoms per hour.

At 6 p.m. we had several ice-islands in sight, Cape Melville bearing south-by-east (true). We now had light winds from the south-south-west.

The north foreland of King George's Island was in sight, and found to be well placed on the charts. The appearance of all this land is volcanic; it is from eight hundred to one thousand feet high. The upper part is covered and the valleys filled with snow of great depth. Before night we had several other islands in sight, with many bergs and much drift-ice.

On the 2nd, at daylight, we made O'Briens and Aspland's Islands, to the eastward, with many ice-islands, some of a tabular form, and from half a mile to a mile in length. Through the fog and mist we got a sight of Bridgeman's Island, and stood for it, with the intention of landing on it. The fog cleared off as we approached it, and we could perceive distinctly the smoke issuing from its sides. We made it in latitude 62° 06' S., and longitude 57° 10' W.

This island is about six hundred feet high, and of the shape of a flattened dome.

On the 3rd we filled away at daylight, and stood for Palmer's Land. The birds now had very much increased, Cape pigeons, with the gray and black petrel, and occasionally penguins, swimming about us in all directions, uttering their discordant screams: they seemed astonished at encountering so unusual an object as a vessel in these frozen seas. At 6^h 30^m we made land, which I took to be Mount Hope, the eastern point of Palmer's Land. By 8 a.m. we had penetrated among the numerous icebergs, until we found it impossible to go further. I have rarely seen a finer sight. The sea was literally studded with these beautiful masses, some of pure white, others showing all the shades of the opal, others emerald green, and occasionally here and there some of a deep black, forming a strong contrast to the pure white. Near to us, we disco-

vered three small islets, and gave them the name of the Adventure Islets; while beyond, and above all, rose two high mountains, one of which was Mount Hope. I place the eastern extremity of Palmer's Land, or Mount Hope, in longitude $57^{\circ} 55' W.$, latitude $63^{\circ} 25' S.$

The whole area was studded with icebergs, which it now became necessary to get clear of, if possible, before night set in.

It was a day of great excitement to all, for we had ice of all kinds and descriptions to encounter, from the iceberg of huge quadrangular shape, with its stratified appearance, to the sunken and deceptive mass, that it was difficult to perceive before it was under the bow. Our situation was critical, but the weather favoured us for a few hours. On clearing these dangers, we kept off to the southward and westward, under all sail, and at 8 P.M. we counted eighty large ice-islands in sight. Afterwards it became so thick with mist and fog, as to render it necessary to lay-to till daylight, before which time we had a heavy snow-storm. The temperature of the water had fallen to 29° ; air 28° . At one hundred fathoms depth we found the former 29° . A strong gale now set in from the southward and westward. The brig's deck was covered with ice and snow, and the weather became excessively damp and cold. The men were suffering, not only from want of sufficient room to accommodate the numbers in the vessel, but from the inadequacy of the clothing with which they had been supplied. Although purchased by the government at great expense, it was found to be entirely unworthy the service, and inferior in every way to the samples exhibited. This was the case with all the articles of this description that were provided for the expedition. Not having been able to satisfy myself to whom the blame is to be attributed, contractors or inspectors, I hesitate to give their names publicity. The deception is in my opinion to be attributed to both.

On the 5th of March the gale had increased. The tender Sea-Gull being in close company, both vessels were in imminent danger. At 3 A.M. we narrowly escaped several icebergs. At 4 A.M. it blew a very heavy gale from the south-west; the temperature of the air fell to 27° , and that of the water was 29° ; the ice formed rapidly on the deck, and covered the rigging, so much as to render it difficult to work either the brig or schooner; dangers beset us in every direction, and it required all the watchfulness we were possessed of to avoid them.

From the state of the weather, the lateness of the season, and the difficulty of seeing around us, not only during the several hours of the night, but even in the day-time, the constant fogs and mist in which we had been for several hours every day enveloped, rendered our exertions abortive, and precluded the possibility of doing any thing more than to attend to the sailing of the vessels. These reasons determined me to give up the endeavour to proceed further south, feeling convinced that the season for such explorations had gone by. I therefore ordered the Sea-Gull to return to Orange Harbour, well knowing that her situation was much worse than our own; directing her to touch at Deception Island on the way, while we proceeded to the northward to examine some of the other islands.

When we bore away, I had the intention of

passing towards the assigned situation of the Aurora Isles, but I found the crew so much enfeebled by their constant exposure, whilst some of them were affected with incipient scurvy, that I concluded it was better to return to Orange Harbour as soon as possible.

We continued under easy sail, enveloped in fogs, and falling in repeatedly with icebergs close aboard, from which at times we escaped with difficulty.

On the 6th of March the wind shifted to the northward, with snow.

On the 7th, while making all way to the northward, the fog lifted, and high land was reported within a short distance of us. A few moments more, and we should have been wrecked. This proved to be Elephant Island. We found from its position that we had been set upwards of fifty miles to the eastward, in the last four days, by the current. We passed to leeward of it. The sea was too high to attempt a landing. In the afternoon it cleared, and from our observations we found Cape Belsham, its eastern point, well placed. We passed between it and Cornwallis Island. The Seal Rocks were also seen and observed upon.

We now stood to the northward, and on the 16th we were off the Straits of Le Maire, where I again tried the deep-sea temperature, with a wire sounding-line, which parted at three hundred and forty fathoms, and we lost the apparatus. I then made a second experiment, with a line of rope four hundred fathoms in length. The temperature of the surface was 44° , of the water below 37° . This was about sixty miles to the eastward of the place where I had sounded before, on the 15th of February, when passing around Cape Horn in the Vincennes.

March 17th, we had light winds from the eastward, and a smooth sea, with delightful weather. There was, however, a heavy bank of cumuli to the south-westward, and after a few hours' calm, the wind came from that quarter, and began to blow fresh, accompanied with heavy squalls. We did not succeed that night in reaching New Island, where it was my intention to have anchored and rode out the gale. We in consequence found ourselves the next morning thirty miles to the eastward of our position on the previous evening, having drifted at the rate of three miles an hour. From appearances I inferred that the gale had set in for several days; I therefore determined to make for Good Success Bay, and await the breaking up of the storm, being satisfied we could make little progress to the westward during its continuance.

We anchored in the bay early in the afternoon, when we took our boats and went on shore for a few hours. There was but little surf when we landed, but it rapidly increased, and one of the boats in attempting to pass through it filled, and after several ineffectual attempts, did not succeed in getting off. A boat was sent to assist, but returned with a report that no relief could be rendered them, and that they had determined to remain until morning.

In the morning the surf had very much increased. The sea setting in the bay rendered our situation uncomfortable, and somewhat dangerous, as we were exposed to the force of it and the wind, which had hauled to the south-east.

At 1 P.M., being desirous of sending provisions to the party on shore, Lieutenant Hartstein was ordered to take charge of two boats, to communicate with them, and give them supplies.

My intention was to effect this by having a line floated on shore by which to haul the seal boat or yawl, having provisions lashed in her, through the surf by the party on shore. Instructions to this effect were given to Lieutenant Hartstein, who was enjoined not to risk the lives of the men. We watched them attentively with our glasses. Shortly after they had anchored their boats outside the surf, we perceived Lieutenant Hartstein and three men strapping on their life-preservers, and preparing themselves for a landing in the boat. I felt under great apprehensions of accident. Placing, however, great confidence in that officer's judgment, I was assured he would not risk the lives of the men, and his own, on such an occasion. It was with great anxiety we watched their proceedings; in a few moments afterwards they were separated from the other boat, still apparently making preparations. In an instant they were borne on the crest of the rollers, and immediately disappeared. Some few minutes after, the boat was seen bottom up among the rollers. Presently the other boat's crew were seen pulling in haste towards a person; one was picked up, then another. We looked intently for the rest, but no signs of them were seen. We then endeavoured to count the party on shore, and we thought it had increased, but the constant motion of the vessel rendered it impossible to keep our glasses fixed on them for a sufficient length of time to ascertain their number. We now saw the boat returning; it soon reached the vessel, and Lieutenant Hartstein and Samuel Stretch proved to be the two that had been saved. Both were much exhausted. The persons in the boat, while yet at a distance from the brig, to relieve our anxiety, gave us the joyful intelligence that Williams and Moore had reached the shore in safety.

Lieutenant Hartstein, on recovering from his exhaustion, informed me, that on arriving at the surf and anchoring the boat, he found it impossible to carry into effect the intention of getting a line on shore. He then concluded that in the surf-boat, with oars, and a line from the boat outside, they might land in safety. Samuel Stretch, John Williams, and Samuel Moore, volunteered to accompany him. They strapped on their life-preservers, with which they were provided, and were preparing themselves for the trial, when a wave curling without them, carried them forward with rapidity; in an instant the boat was thrown end over, and they found themselves struggling for life in a furious surf. Had it not been for the life-preservers, they must all have been drowned. The under-tow assisted in bringing Stretch and himself out, (neither of whom could swim,) together with the boat. Williams and Moore swam to the beach.

The night proved dark and stormy, and the squalls were furious.

The morning of the 21st dawned with no better prospect. All our endeavours to get a supply of provisions to the party on shore by kites, &c., failed, and it was now deemed advisable for the safety of the brig, to slip our cables and go to sea on the making of the flood, which sets out of the bay. Previous to this time, we were employed in

supplying the yawl with provisions, intending to leave her as a buoy to our cable and anchor; and to prevent her from sinking, our India-rubber life-savers were lashed in her.

We did not again reach Good Success Bay until the night of the 25th, after five days' absence, when we found the party had got the provisions, and were all well. At daylight on the 26th they came on board. On the 27th we recovered our anchor, and on the 28th set sail for Orange Harbour.

On the evening of the 29th, having entered Nassau Bay (it being quite dark), as we were standing as we supposed over for Orange Harbour, we heard the surf, and suddenly discovered that we were close in and among the kelp; we immediately anchored in six fathoms.

At daylight we found ourselves in a snug cove of Wollaston's Island, and discovered that it was the false pack-saddle to the southward of the island which had served to mislead us.

We were here visited by a canoe with six natives, two old women, two young men, and two children. The two women were paddling, and the fire was burning in the usual place. They approached the vessel, singing their rude song, "Hey meh leh," and continued it until they came alongside. The expression of the younger ones was extremely prepossessing, evincing much intelligence and good humour. They ate ham and bread voraciously, distending their large mouths, and showing a strong and beautiful set of teeth. A few strips of red flannel distributed among them produced great pleasure; they tied it around their heads as a sort of turban. Knowing they were fond of music, I had the fife played, the only instrument we could muster. They seemed much struck with the sound. The tune of "Yankee Doodle" they did not understand; but when "Bonnets of Blue" was played, they were all in motion keeping time to it. The vessel at this time was under way, and no presents could persuade them to continue any longer with us. There was some disposition in the younger ones, but the adults refused to be taken where the fickleness of their climate might subject them to be blown off. We found them also extremely imitative, repeating over our words and mimicking our motions. They were all quite naked.

I have seldom seen so happy a group. They were extremely lively and cheerful, and any thing but miserable, if we could have avoided contrasting their condition with our own.

The colour of the young men was a pale, and of the old a dark copper colour. Their heads were covered with ashes, but their exterior left a pleasing impression. Contentment was pictured in their countenances and actions, and produced a moral effect that will long be remembered.

On the 30th we reached Orange Harbour. While yet off the port, we made signal for the boats, and were soon joined by them, and learned with much pleasure that they were all well. The Sea-Gull had returned safely. Lieutenant Craven having entertained some fears of the safety of the launch, which had been absent on a surveying excursion, had despatched that vessel in pursuit of her.

The Sea-Gull returned to Orange Harbour from the southern cruise on the 22nd of March, having, after parting company, visited, as directed, Deception Island.

The plan of Pendulum Cove by Lieutenant Kendall, of the Chanticleer, with which I furnished Lieutenant Johnson, was found accurate. On their landing, the bare ground that was seen was a loose black earth. The beds of the ravines and the beaches were of a black and reddish gravel, much resembling pumice-stone in appearance. Penguins were seen in countless numbers, or, as he expresses it, "covering some hundreds of acres on the hill-side." It was then the moulting season, and they were seen busily occupied in picking off each other's feathers. It was an amusing sight to see them associated in pairs, thus employed, and the eagerness with which the sailors attacked them with the oars and boat-hooks. They were not inclined to submit quietly to this intrusion, and in some instances readily gave battle. Their manner in doing it was to seize the aggressor with their bill, and beat him with their flippers. Their bearing was quite courageous, and their retreat dignified, as far as their ridiculous waddle would permit. They were showy-looking birds, with yellow topknots, and are known as the aptenodytes chryscome.

As an accompaniment to these penguins, a small white pigeon (chironis or sheath-bill) was found here, quite tame. These were easily taken in numbers. They are not web-footed, have red legs and bills, with perfectly white though not fine plumage. They seem to live entirely on the dung of the penguin, and their flesh is black, coarse, and unpalatable. Sailing up the bay, they descried a sea-leopard (the *phoca leopardina* jam), which Lieutenant Johnson succeeded in taking; but by an unaccountable mistake, the skull, &c. were thrown overboard. Its dimensions were also omitted to be taken.

Knowing that Captain Foster, in the Chanticleer, had left here a self-registering thermometer in 1829, I directed Lieutenant Johnson to look for it, and note its standing. Immediately on securing the tender he proceeded to search for it, but notwithstanding the particular directions, he did not find it. Since my return home, I have received a letter from William H. Smiley, master of a sealing vessel that touched there in February, 1842, stating that he had found the thermometer, and carefully noted its minimum temperature, which was 5° below zero.

Lieutenant Johnson, in company with Assistant-Surgeon Whittle, visited an old crater, at the head of the bay, where a gentle ascent of about four hundred feet brought them to the edge of an abrupt bank, some twenty feet high, surrounding the crater on the bay side. The crater was about fifteen hundred feet in diameter, from east to west, bounded on the west or further side by lofty hills, with many ravines, which had apparently been much washed by heavy rains. This led to the belief that the water found within the crater would be fresh, but its taste, and the incrustation of salt found on its borders, showed that it was not so. Near the east end of the crater, the water boils in many places, sometimes bubbling out of the side of a bank, at others near the water's edge, with a hissing noise. The surface water was found to be on a level with the waters of the bay, and to be milk-warm. A few inches below, it was perceptibly colder. No thermometric observations were ob-

tained. The ground near the Boiling Springs was quite hot. In the vicinity were lying quantities of cellular and scoriaceous lava. The only sign of vegetation was a lichen, growing in small tufts, around the mouth of several small craters, of three or four feet in diameter. From these a heated vapour is constantly issuing, accompanied by much noise. Before they returned to the tender, they were overtaken by a violent snow-storm from the north-east, and with difficulty reached the cove without the boat, having been compelled to leave it at the opposite side of the bay, for the force of the wind was such as to render all their efforts to pull against it useless. This weather continued with much snow for three days, when it ceased snowing, but still blew heavy. It was the intention of Lieutenant Johnson to carry over the yawl, for the purpose of sounding in the crater, to ascertain its depth, and get its temperature, which it is to be regretted was not done. On the 17th of March they sailed from Deception Island, having left a bottle enclosing reports, tied to a flag-staff. This was afterwards found by Captain Smiley, who mentions in his letter to me, that in February, 1842, the whole south side of Deception Island appeared as if on fire. He counted thirteen volcanoes in action. He is of opinion that the island is undergoing many changes. He likewise reports that Palmer's Land consists of a number of islands, between which he has entered, and that the passages are deep, narrow, and dangerous.

The Sea-Gull, after a stormy passage, reached Orange Harbour on the 22nd, with all hands much exhausted. She was despatched by Lieutenant Craven the next day, as before stated, in search of the launch, (which had been absent eleven days,) on the route she had been ordered to pursue.

In passing over from Hermit Island to that of Evout's, during a brisk gale and heavy sea, the launch, in towing, filled, broke adrift, and was lost. The men had all been previously ordered out of her, and most of the articles removed. The Sea-Gull again reached Orange Harbour on the 5th.

On her arrival, finding the launch had not completed the duties pointed out, I again despatched the Sea-Gull tender to finish them, particularly to examine and survey a harbour on the east side of Wollaston's Island. She accordingly sailed the next day, and succeeded in performing the required duty, having surveyed a very safe and convenient harbour on the east side, and ascertained that the so-called Wollaston Island formed two islands. Leaving to the easternmost the name of Wollaston, I have given to the western the name of Baily, after Francis Baily, Esq., the well-known vice-president of the Royal Society, as a small memento of the obligation the expedition and myself are under to him, for the great interest he took in the equipments, and the kindness shown me while in London when procuring the instruments. The harbour that lies between these two islands was named after the Sea-Gull. A chart of it will be found in the Hydrographical Atlas. Lieutenant Johnson was again transferred to the Vincennes. On the 12th, the Flying-Fish arrived, bringing news of the Peacock and their operations, which will be detailed in the following chapter.

CHAPTER VI.

SOUTHERN CRUISE. VALPARAISO.

DEPARTURE OF PEACOCK AND FLYING-FISH—GALE—SEPARATION—DEFECTIVE OUTFITS OF PEACOCK—ACCIDENT TO WILLIAM STEWART—HIS DEATH—FIRST ICEBERG—GALE—SITUATION OF PEACOCK—BIRDS—AURORA AUSTRALIS—SNOW-STORM—FLYING-FISH REJOINS—LIEUTENANT WALKER'S REPORT—SITUATION OF VESSELS—CAPTAIN HUDSON IN THE PEACOCK RESOLVES TO RETURN—SHIP ON FIRE—FLYING-FISH DESPATCHED FOR ORANGE HARBOUR—ARRIVAL OF PEACOCK AT VALPARAISO—FIND THE RELIEF—DIFFICULTIES ENCOUNTERED—GALE—TOWER ROCKS—NOIR ISLAND—DANGEROUS POSITION—LOSS OF ANCHORS—THE RELIEF PROCEEDS TO VALPARAISO—ARRIVAL OFF THE PORT—RELIEF ANCHORS—ARRIVAL OF FLYING-FISH AT ORANGE HARBOUR—PREPARATIONS FOR DEPARTURE—CLIMATE—ANIMALS—WOLF—BIRDS—ORANGE HARBOUR—VINCENNES AND PORPOISE TAKE THEIR DEPARTURE—SEA-GULL AND FLYING-FISH TO AWAIT THE RELIEF—ANCHOR IN SCAPENHAM BAY—VINCENNES AND PORPOISE PART COMPANY—VINCENNES' ARRIVAL AT VALPARAISO—THE PEACOCK THERE—ARRIVAL OF PORPOISE AND FLYING-FISH—COAST OF CHILI—CORDILLERAS—VISIT TO AUTHORITIES OF VALPARAISO—LANDING OF INSTRUMENTS—CUSTOM-HOUSE OFFICERS—OBSERVATORY—NORTHERS—PERCEPTIBLE CHANGE IN THE BAY—VALPARAISO—DESCRIPTION OF IT—ITS ORDER AND GOVERNMENT—TRAIT OF CHILIANS—POLICE—THEIR SIGNAL—SHOPS—AMUSEMENTS—CHINGANO—DANCES—SAMACUECA—HIGHER CLASSES—DRESS—TASTE FOR MUSIC—FONDNESS FOR FLOWERS—GENERAL PRIETO—HONOURS PAID HIM—BALL—DESCRIPTION OF IT.

At 10 A.M., on the 25th of February, the Peacock, with the tender Flying-Fish, got under way, and also received parting cheers from the Vincennes and Relief as they passed out of the harbour. The wind, as with the Porpoise, was light and variable until the afternoon, when they likewise encountered the heavy squall from the south-west, which with the thick weather induced Captain Hudson to regain the outer anchorage of Orange Harbour, and remain there during the continuance of the gale. The next morning, the weather proving more favourable, they again got under way, and stood down the bay, with all sail set, and a fine breeze from the northward.

The heavy bank of cumuli that had been perceived in the west, by noon began to develop itself, and by three o'clock they were under their storm-sails. The barometer, which was at 29.21 in., began to rise as it came on. This gale lasted twenty-four hours, and during its continuance the tender Flying-Fish was lost sight of. Captain Hudson in his instructions to Lieutenant Walker, notified him that the Peacock would wait twelve hours in or near the situation where last seen; which he now did; but no tidings being received of the tender, he bore away for their first rendezvous, having taken the precaution to fix four places of meeting.

During the last gale, from her bad and defective outfits, no vessel could be more uncomfortable than the Peacock, and although every precaution was taken to make the ports tight, yet from their working, it was found impossible to keep them so.

On the 7th they again had squalls of snow and rain, with strong gales. On the 9th, although the weather had moderated, yet the sea was very heavy, and the ship tossed and tumbled about in every direction. William Stewart, captain of the main-top, was this day knocked off the yard, and in his fall struck the main rigging, but he canted and fell overboard, when he was seen to lie quite insensible, feet up, supported by his exploring boots, which were supposed to have occasioned his fall. A bowline was thrown over them, and he was dexterously drawn on board again. The ship had but

little headway, and it would have been impossible to lower a boat on account of the roughness of the sea; his rescue was therefore almost miraculous. Every care was taken of him, but it was soon found that the violence of the concussion had been so great that his lungs had become gorged with blood, and little hopes were entertained of his recovery. After lingering to the 11th, he died. He was greatly regretted by both officers and men, for he had proved himself an excellent man, and was well calculated for the service. On the same day his body was committed to the deep, with the usual ceremonies.

This day they made the first iceberg. The only indication in the air or water on approaching it, was a fall of two degrees in the temperature of the former, and one degree in the latter. Their position was in latitude 64° S., and longitude 80° W.

On the 14th, Captain Hudson remarked a great and striking change in the weather since they passed the 62° of south latitude, it having become much more settled, and free from the sudden squalls and constant gales they had experienced since leaving Cape Horn. Several birds were shot this day, including an albatross and many penguins. Petrels and Cape pigeons were seen. They now began to fall in with icebergs in numbers. The temperature of the water and air had fallen to 33° and 32°.

They encountered, during the 17th, and part of the 18th, the heaviest gale and sea they had experienced since leaving the United States. The ship was completely coated with ice, even to the gun-deck. Every spray thrown over her froze, and her bows and deck were fairly packed with it. The crew suffered much from the gun-deck being constantly wet; and it being now covered with ice, the ship was damp throughout.

On the 18th, the gale continued, with a heavy sea, the winds prevailing more from the south and south-east. There were many birds about the ship; among them a sheath-bill, which Mr. Peale made every exertion to take, but without success. A blue petrel was, however, caught. Several icebergs

were in sight, and at night they had a beautiful display of the aurora australis, extending from south-south-west to east. The rays were of many colours, radiating towards the zenith, and reaching an altitude of 30°. Several brilliant meteors were also observed.

Hot coffee was now served to the crew at midnight, or at relieving of the watch, which proved exceedingly acceptable. The temperature of the air had fallen to 22°, and of the water to 28°.

On the 19th they had another display of the aurora, and it exhibited a peculiar effect. In the southern quarter there was an appearance of a dense cloud, resembling a shadow cast upon the sky, and forming an arch, about 10° in altitude. Above this were seen coruscations of light, rendering all objects around the ship visible. From behind this cloud, diverging rays frequently shot up to an altitude of from 25° to 45°. These appearances continued until day dawned. The night was remarkably fine, and many shooting stars were observed. The barometer stood at 29.77 in. During the afternoon of this day, a fog-bank was perceived in the south-western quarter, and they were a short time afterwards completely enveloped in a fog so dense and thick, that they could not see twice the length of the ship. Fortunately, before it closed in, they were enabled to get good bearings of the different icebergs in sight, and particularly of those which closely surrounded them.

On the 20th, they had moderate weather, with fogs. They had now reached the longitude of 90° W., latitude 68° S., and obtained a sight of the icy barrier. The fog becoming dense, they were obliged to heave the ship to; the sea being smooth, they took the opportunity to sound with the deep-sea line, with the apparatus for temperature. The line being of copper wire, they succeeded in getting out eight hundred fathoms of it; but when they began to reel it up, it parted, and the whole was lost. The noise of the sea beating on the icebergs was frequently heard close aboard, and several loud sounds resembling thunder, which they imputed to the breaking asunder and turning over of large icebergs.

During the whole of the 21st they could not venture to run, in consequence of the dense fog, which lasted all day, with the exception of about an hour. Mr. Peale having shot one of the petrels, of the same kind as seen the day before, a boat was lowered to pick it up, of which advantage was taken to try the current. It was found setting one-third of a mile per hour to the north-west-by-west.

On the 23rd it partly cleared, and the fog having been succeeded by a snow-storm, the wind hauled to the west, with a heavy bank of clouds in that quarter. The barometer showed no indication of a gale; the weather turned out thick, and prevented them from seeing any distance. They had some severe squalls, accompanied with snow. On the 24th, the wind hauling to the northward and westward, brought snow and thick weather, with some heavy squalls. Many icebergs were met with, which were fortunately avoided. A sharp look-out was kept for them, and the ship put in readiness to perform any manoeuvre that might be desirable. Some of the icebergs were two hundred feet above the surface of the water, and of a pinnacle shape. The snow continued

to fall fast, rendering the ship uncomfortably wet.

On the 25th, the fog continued until near meridian. Many birds were seen about the ship, and many fin-back whales. They obtained a meridian observation, the first for the last six days, and found themselves in the latitude of 68° S., longitude 97° 58' W. Here, in the evening, to their great joy, they fell in with the tender Flying-Fish. On her near approach, all hands were turned up, and gave her three hearty cheers. Lieutenant Walker came on board, and reported to Captain Hudson that he had visited all the appointed rendezvous in hopes of falling in with the Peacock, but without success, having encountered very severe and boisterous weather. On the 18th they left the fourth rendezvous, having passed the 17th in its vicinity. They then turned towards the south for Cook's *Ne Plus Ultra*, and continued their way to the southward. The weather was at times very thick, the ice-islands became numerous, and they occasionally passed a little floating ice. On the 18th the ice became abundant, and floated in large masses around them. At 4 A.M. the water was much discoloured, and some of the ice also having the appearance of being but lately detached from the land. They obtained a cast of the lead, but found no bottom at one hundred fathoms. At eight o'clock the fog lifted, and discovered, to the amazement of all, a wall of ice from fifteen to twenty feet high, extending east and west as far as the eye could reach, and spreading out into a vast and seemingly boundless field to the south. Their latitude at this time was about 67° 30' S., longitude 105° W. The weather becoming thick, they stood to the northward, and soon ran into blue water.

On the 21st, at 7 A.M., they saw the ice extending in broken ranges from south-by-east to north-east, and the sea extending round to the westward. At eight o'clock the water was again much discoloured, and many large icebergs were around. At meridian their latitude was 68° 41' S., longitude 103° 34' W., when they again stood to the southward, running among the ice-islands with a fair wind, flattering themselves that they should before noon of the next day get further south than Cook had. In this, however, they were disappointed; for the weather became thick, and they were in consequence obliged to heave-to.

On the morning of the 23rd of March, their latitude was 70° S., longitude 100° 16' W. The weather proved clear. In the afternoon they again stood to the southward and eastward for three hours, when they observed the appearance of land, and discovered large masses of ice and numerous icebergs. At midnight the southern horizon was beautifully illuminated with the aurora australis.

On the 24th they had a heavy fall of snow; passed many icebergs, and large quantities of floating ice; got suddenly into large fields of packed and broken ice, extending as far as the eye could reach, in all directions, which, with the accumulation of snow, appeared to be rapidly becoming solid. They lost no time in forcing their way out. All on board were of opinion, that within a short time after they cleared it, it became a firm field of ice. The latitude observed was 69° 06' S., longitude 96° 50' W.

Having on two occasions narrowly escaped being closed in by the ice, Lieutenant Walker had de-

terminated to return, and was making his way to the north when he fell in with the Peacock.

The nights having become long, with the interruptions occasioned by fogs and snow-storms, afforded but little time for running the vessels among the icebergs, whose numbers rendered the navigation extremely hazardous. The condition of the Peacock for a winter's campaign was miserable, and on board the Flying-Fish there was no protection in the event of being frozen in. The positive nature of his instructions, combined with the report of Lieutenant Walker, convinced Captain Hudson of the necessity of turning the vessels' heads towards a more temperate climate. On holding a council with his officers, he found them all of the opinion that the season for active operations in these latitudes had passed, and that it was advisable for the vessels to proceed without delay to the north.

The vessels accordingly steered to the northward.

The weather, during the cruise south, was exceedingly unfavourable; for, with few exceptions, during their stay in the antarctic circle, they were enveloped in dense fogs, or found only occasional relief from them in falls of snow. The crew during the whole time enjoyed an unusual degree of health, which is not a little surprising; for since leaving Orange Harbour, the state of the ship had been such as to promote disease. The precautions and endeavours to keep the men dry entirely failed, from the condition of the ship, heretofore referred to.

The weather proved thick on the 28th and 29th, and they had little opportunity of making progress to the north, against the north-west winds, which were light. On this night a new danger beset them, that of being consumed by fire! At midnight, on the 29th of March, they were aroused by the smell of burning and smoke, issuing from the main hold. The usual orders were given relative to the magazine. The drum beat to quarters. On opening the main hatch, smoke issued out in volumes, and fire was discovered under it, proceeding from a bag in full blaze. This was soon passed on deck, and the fire extinguished. It was fortunately discovered in time, and was found to proceed from a quantity of coffee, which had been put below in the bag, after it had been burnt or roasted, the previous afternoon.

On the 1st of April, in latitude 60° 12' S., longitude 84° 20' W., Captain Hudson despatched the tender to Orange Harbour, with his reports to me, and continued his route to Valparaiso. On the evening of the 19th they made the land of Chili; and on the 21st the Peacock arrived in Valparaiso, where to their surprise they found our store-ship the Relief, which had arrived at Valparaiso some days previous. The last icebergs seen were in latitude 62° 30' S., longitude 87° 41' W.; the temperature of air 33°; of water 35°.

The Relief left Orange Harbour on the 26th of February, for the purpose of visiting various places in the Straits of Magellan, to afford an opportunity of making investigations, and opening a larger field for our naturalists during the fifty or sixty days they were to be detained on the coast. Most of the scientific gentlemen were accordingly transferred to her; and she was ordered to enter the Brecknock Passage, and thence into Cockburn

Sound, of which we had King's valuable chart; and I thought that the passage into the strait was more feasible, and might be sooner accomplished by that route than by taking the eastern passage, particularly as the wind was favourable. I also thought it would enable them to explore more parts of the straits, and those which had been least visited.

Various difficulties prevented her reaching the entrance to the Brecknock Passage, principally that of keeping too far off the coast on long tacks to the southward.

On the 17th of March, after being at sea twenty days, they approached the coast, and a gale ensuing from the south-west, Lieutenant-Commandant Long, on the following day, determined to run in and anchor under Noir Island, which is spoken of by King as an excellent harbour. The wind was blowing a gale from the south-west, with thick weather and hail-squalls. Noir Island was discovered under the lee, judged to be about twelve miles distant, when they steered for it. It becoming thick, they did not discover the Tower Rocks until they were almost up with, and just had time to clear them. These rocks presented a magnificent and fearful sight, the sea breaking completely over them. Three anchors were prepared. They rounded the south-east point of the island, and stood in for the bay. At about five o'clock they anchored in seventeen fathoms, and the anchor took effect.

On the morning of the 19th, the highest point of Noir Island was seen, capped with snow; the wind had abated somewhat, but not enough to permit of their landing in a snug little cove abreast of them. In the afternoon the wind again increased, and another anchor was let go. There was much sea, and the ship rode very uneasy at her anchor. The sea broke tremendously on the reef astern, shooting up in columns, such as are seen to appear under the effect of mirage. After it became dark, the wind shifted to the southward and eastward, which brought the sea from that quarter, and exposed them more both to it and the wind. The anchors shortly after began to drag, and the vessel was urged in the direction of a rock. Fortunately the wind abated towards morning, and came from its old quarter, south-west, more off the land, but still blew with violence.

On the morning of the 20th, one of their chain cables was found to have parted. The chain was hove in with some difficulty, and another anchor let go. The weather towards evening became again threatening, and produced no little anxiety. At nightfall it shifted in the same way it had done the previous evening, blowing again heavily. The ship was felt to be constantly dragging, accompanied by that grating kind of noise of the chain moving on the bottom, which is any thing but agreeable. The rock astern, together with the reef toward which the wind and sea were both setting the ship, rendered their situation truly appalling. The prospect of any one surviving, in case they had struck, was extremely slight. The night was dark and stormy, and the dragging continued occasionally until midnight, when they found they had passed and escaped the rock, and were near the reef. They now shipped a heavy sea over the bows, the shock of which was so great that it parted their cables, and their drifting be-

came rapid. From the set of the current, they just cleared the reef. When the point of the island bore east of south, they slipped their cables, wore round, and made sail; and on the 21st, at daybreak, they found themselves off Cape Gloucester.

The conduct of Lieutenant Commandant Long, his officers and men, during the perilous situation in which the Relief was placed, deserves great praise; they did their duty in every respect. On getting to sea, Lieutenant-Commandant Long, with a council of officers, opened his sealed instructions, which directed him to proceed to Valparaiso, in the event of not finding me on his return to Orange Harbour; and concluded to make for Valparaiso, off which port he arrived on the 13th of April, without anchors. It was here that Commandant Locke, of her Britannic Majesty's ship Fly, in the most prompt and handsome manner, despatched a boat with an anchor to the assistance of the Relief; and it affords me great pleasure to acknowledge the obligation we feel for this opportune service. The next day the Relief anchored in the bay of Valparaiso.

But to return to Orange Harbour.

The Flying-Fish arrived on the 11th April. The duties of the observatory having been completed, the instruments were embarked, and every thing made ready for our departure. During the Vincennes' stay here of sixty days, we found the weather exceedingly changeable. The winds prevailed forty-seven days from the westward, twelve days from the north and eastward, and one from the south-east. The mean temperature was $44^{\circ}36'$; maximum 56° , minimum 32° . During this time there were eleven gales of wind, of from two to three days' duration.

There were but few days on which rain did not fall during some portion of the twenty-four hours, but seldom heavily; lightning and thunder occurred once during the time. The climate may be called extremely boisterous, although from the fact of the natives being without any kind of covering, one would suppose it cannot be very variable as to temperature, throughout the year. The want of clothing is not, however, peculiar to all the natives; those seen at Good Success Bay were well covered with guanacoe skins, and are a finer-looking and taller race of men.

Observations of any kind are difficult to be had at Orange Harbour, either by day or night.

While Lieutenant Carr and his party were at the observatory, a wolf was seen, at which Midshipman Clark fired, but supposed he was not shot. The next morning he was found dead at a short distance from the place. Mr. Drayton made a correct drawing of him, and a number of measurements were taken. The hair was long over the whole body, and that about the neck and shoulders stood erect. It was a male, weighed fifteen pounds and three-quarters, and measured, from nose to tip of tail, three feet six and three-fourths inches, and stood sixteen inches and a half high; colour of back, top of head, and tail, gray, the latter with a tuft of black at its end; sides of head and outside of legs reddish brown; white between the legs and on the belly. Dr. Fox some days afterwards shot a female near the same place; she had attacked one of the men, and seized his pea-jacket.

The wolf is the only land animal that is a native

of the soil, and is supposed the same as that described by Captain King. The natives have many dogs.

Of land birds, we found the upland goose, a most beautiful eagle, a few plover, and some small birds. There are great quantities of wild fowl, geese, ducks, and the usual sea-birds, to be seen at all times in the harbour, where they find abundance of food among the kelp.

A number of burnt human bones were dug up in a cave; but whether the natives burn their dead or not, we had no opportunity of ascertaining.

Orange Harbour is an excellent place to obtain wood and water. The latter is easily procured, and of good quality. Winter-bark may be obtained here in large quantities; scurvy-grass and wild celery are also plentiful around the shores; and fish are in abundance.

As a resort for vessels in distress or affected with scurvy, &c. &c., this port may be recommended; and it is the only one on this coast that offers a safe and convenient harbour to supply their wants.

On the 17th April, the time having expired for the return of the Relief, I concluded to leave Orange Harbour with the Vincennes and Porpoise. Believing the Relief had been detained, the Flying-Fish and Sea-Gull tenders were both left to await her arrival for ten days, to take the scientific gentlemen on board, and join us at Valparaiso, in order to prevent detention by the slow sailing of that ship.

We got under way, but the wind drawing ahead, with appearances of bad weather, we anchored in Scapenham Bay. The weather becoming stormy, and thinking the place in which we were anchored too much exposed, we again got under way, ran back, and anchored in Orange Bay.

Before leaving these desolate and stormy regions, it may be expected that I should say a few words relative to the passage round the Cape. There are so many opinions relative to the best manner of proceeding in this navigation, that one in consulting them derives but little satisfaction, no two authorities agreeing in their views upon the subject. I am inclined to believe that as much depends upon the vessel, and the manner in which she is navigated, as the route pursued, whether the Cape is passed close to, or given a good berth: the object of all is to pass it as quickly as possible, and taking into consideration the difficulties to be incurred from boisterous weather, heavy seas, and ice, it is impossible to lay down any precise rule: that course which appears most feasible at the time ought to be adopted; keeping, however, in view, that there is no danger to be apprehended in navigating on the western coast of Terra del Fuego, as the current sets along its coast, and it is perfectly safe and practicable to navigate it as far as Cape Pillar. The great difficulty exists in passing the pitch of the Cape; there is none afterwards in getting to the westward. On the coast, the wind seldom blows long from the same quarter, but veers from south-west to north-west: the gales generally begin at the former quarter and end at the latter. Previous to the south-west gales, it would, therefore, in all cases, be advisable, when indications of their occurrence are visible, (which

are known by the banks of cumuli in that quarter, some twenty-four hours previously,) to stand to the southward and westward in preference, with as much sail as well can be carried, that when the change occurs, you may be ready to stand on the other tack to the northward. One thing every navigator ought to bear in mind, that it requires all the activity and perseverance he may be possessed of to accomplish it quickly.

On the 20th we took our final leave of these waters, and on the 21st lost sight of land, passing to the northward of the island of Diego Ramieres.

On the 23rd, during a strong gale, we parted company with the Porpoise.

Immediately after leaving Orange Harbour, dysentery made its appearance on board the Vincennes, and ran through the whole ship's company. Some of the officers were also affected. It proved of a very mild type, and readily yielded to medical treatment. Upon our arrival at Valparaiso, it had entirely disappeared. The medical officers were unable to account for it, the health of the ship's company having been very good during our stay at Orange Harbour. It was not thought to be owing to the water, as they had been using it for two months without any bad effect, but I think must be imputed to the cold and wet we experienced in the first part of the passage.

On the 15th we made the land off Valparaiso, and before noon anchored in the bay, where we found the Peacock, and received tidings that the Relief had sailed with the store-ship Mariposa for Callao. The Porpoise arrived on the 16th, and the Flying-Fish reached Valparaiso on the 19th, after having experienced extremely boisterous weather.

On approaching the coast of Chili, every one is anxious to get a sight of the Cordilleras. There are only two periods during the day in which they can be seen to advantage, viz. in the morning before sunrise, and in the evening at sunset. The first is the most striking view. The outline is at that time of a golden hue, and may be easily traced, in a long line, running north and south. This gradually brightens, and is lost the moment the sun is seen.

The evening view gives rise to disappointment. The mountains are seen at a great distance (eighty miles in a bird's flight), reflecting the setting sun, and, in consequence, appear much lower than is anticipated.

On our arrival at Valparaiso, I lost no time in establishing the observatory. The officers and scientific gentlemen were assigned to such duties as were deemed most desirable to insure the results in the different departments.

The authorities, whom I at once called upon in company with our consul, were exceedingly kind and attentive, and gave every offer of assistance.

The officers of the customs readily gave me permission to land all my instruments. Mr. Cood, an English gentleman, kindly offered our consul to place at my disposition an unoccupied house on the hill. Although it was some distance to mount up, as it was quiet and out of the way, I accepted the kind offer, and occupied it.

As I was desirous of avoiding all unnecessary delay, not only on account of the loss of time we had already met with, but because the season was approaching when the *northers* might be expected,

every exertion was made to supply our wants, and through the kindness and attention of our consul, G. G. Hobson, esq., this was effected in the shortest possible time. The *northers* are greatly dreaded, although I think without much cause. One of them, and the last of any force, I had myself experienced in June, 1822 (whilst in command of a merchant vessel). In it eighteen sail of vessels were lost. But since that time vessels are much better provided with cables and anchors, and what proved a disastrous storm then would now scarcely be felt. I do not deem the bay so dangerous as it has the name of being. The great difficulty of the port is its confined space, and in the event of a gale, the sea that sets in is so heavy, that vessels are liable to come in contact with each other, and to be more or less injured. The port is too limited in extent to accommodate the trade that is carried on in it. Various schemes and improvements are talked of, but none that are feasible. The depth of water opposes an almost insuperable obstacle to its improvement by piers. The enterprise of the government, and of the inhabitants of Valparaiso, is, I am well satisfied, equal to any undertaking that is practicable.

From the best accounts, I am satisfied that the harbour is filling up, from the wash off the hills. Although this may seem but a small amount of deposition, yet after a lapse of sixteen years, the change was quite perceptible to me, and the oldest residents confirmed the fact. The anchorage of the vessels has changed, and what before was thought an extremely dangerous situation, is now considered the best in the event of bad weather. The sea is to be feared rather than the wind, for the latter seldom blows home, because the land immediately behind the city rises in abrupt hills, to the height of from eight to fifteen hundred and two thousand feet.

Valparaiso has greatly increased in size and consequence within the last few years, and has become the great sea-port of Chili, and, indeed, of the whole coast. Although it labours under many disadvantages as respects its harbour, which is inferior to others on the coast, yet it is the nearest and most convenient port to Santiago, the capital.

I have had some opportunity of knowing Valparaiso, and contrasting its present state with that of 1821 and 1822. It was then a mere village, composed, with but few exceptions, of straggling ranchos. It has now the appearance of a thickly-settled town, with a population of thirty thousand, five times the number it had then. It is divided into two parts, one of which is known by the name of the Port, and is the old town; the other by that of the Almendral, occupying a level plain to the east. Its location is by no means such as to show it to advantage. The principal buildings are the custom-house, two churches, and the houses occupying the main street. Most of the buildings are of one story, and are built of adobes or sun-dried brick. The walls of the buildings are from four to six feet thick. The reason for this mode of building is the frequent occurrence of earthquakes. The streets are well paved. The plaza has not much to recommend it. The government-house is an inferior building. Great improvements are now making, and many buildings on the eve of erection.

They are about bringing water from one of the

neighbouring springs on the hill, which, if the supply is sufficient, will give the town many comforts. On the hills are many neat and comfortable dwellings, surrounded by flower-gardens. These are chiefly occupied by the families of American and English merchants. This is the most pleasant part of the town, and enjoys a beautiful view of the harbour. The ascent to it is made quite easy by a well-constructed road through a ravine. The height is two hundred and ten feet above the sea. The east end of the Almendral is also occupied by the wealthy citizens. The lower classes live in the ravines. Many of their habitations are scarcely sufficient to keep them dry during the rainy season. They are built of reeds, plastered with mud, and thatched with straw. They seldom contain more than one apartment.

The well-known hills to the south of the port, called the "Main and Fore Top," are the principal localities of the grog-shops and their customers. These two hills, and the gorge (*quebrada*) between them, seem to contain a large proportion of the worthless population of both sexes. The females, remarkable for their black eyes and red "bayettas," are an annoyance to the authorities, the trade, and commanders of vessels, and equally so to the poor sailors, who seldom leave this port without empty pockets and injured health.

It was difficult to realize the improvement and change that had taken place in the habits of the people, and the advancement in civil order and civilization. On my former visit, there was no sort of order, regulation, or good government. Robbery, murder, and vices of all kinds, were openly committed. The exercise of arbitrary military power alone existed. Not only with the natives, but among foreigners, gambling and knavery of the lowest order, and all the demoralizing effects that accompany them, prevailed.

I myself saw on my former visit several dead bodies exposed in the public squares, victims of the *cuchillo*. This was the result of a night's debauch, and the fracas attendant upon it. No other punishment awaited the culprits than the remorse of their own conscience.

Now, Valparaiso, and indeed all Chili, shows a great change for the better; order reigns throughout; crime is rarely heard of, and never goes unpunished; good order and decorum prevail outwardly every where: that engine of good government, an active and efficient police, has been established. It is admirably regulated, and brought fully into action, not only for the protection of life and property, but in adding to the comforts of the inhabitants.

The predominant trait of the Chilians, when compared with other South Americans, is their love of country and attachment to their homes. This feeling is common to all classes. There is also a great feeling of independence and equality. Public opinion has weight in directing the affairs of state. The people are fond of agricultural pursuits, and the lower orders much better disposed towards foreigners than in other parts. Schools and colleges have been established, and a desire to extend the benefits of education throughout the population is evinced.

The credit of forming the police is given to Portales. It consists of two distinct bodies, one mounted, the other on foot. The watchmen carry

swords only. The former patrol the streets on horseback, while the latter take their particular walk round a square or two, for which they are responsible. A message may be sent through them to the furthest end of the city, and an answer returned, in fifteen minutes. They carry a loud and shrill whistle, the sounds of which are varied as occasion requires, and by it a concentration of force can be effected in a few moments.

When they cry the hour they all sing the same tune, but the pitch is ranged in accordance with the scope of the voice. The manner of singing the hour, *Viva Chili, Viva Chili, las diez anda y serena*, is pleasing.

In the morning they add to it a prayer, as *Ace Maria purissima las cinco y media*.

This police adds greatly to the comfort as well as to the safety of the inhabitants. To give an instance of its effects, apothecaries are chosen weekly to keep their shops open all night, and in case of sickness or requiring any aid, one has only to call for the *vigilante*, who takes the recipe and passes it to the next, and so on to the shop, where it is obtained, and returned as soon as possible, without any trouble whatever. They have their particular rounds, and each door is obliged to have a padlock. If any door is found without it, they put a lock on, for which the owner has to pay a fine of four dollars to the city to have it removed; half is the reward of the vigilante.

A complaint during our stay was made by one of the officers, of exactions made by a policeman. It was instantly taken notice of, and punished. It is to be regretted that this police should still wear the military uniform, as it seems unbecoming in a republican form of government; at least we thought so.

The shops are well filled with almost all articles of English, American, and French manufacture. The markets are well supplied. There are no market-gardens in the neighbourhood of Valparaiso, and nearly all the vegetables are brought from the valley of Quillota, about sixteen miles distant, on the backs of mules, in panniers. The mode of bringing grass or clover to market is peculiar: it sometimes almost covers both horse and rider.

There are but few amusements. Among them is a theatre, which is small and inconvenient, and the *chingano*, both of which are usually open on a Sunday evening.

The Chilians are extremely fond of the dance called the *samameuca*. This may be called the national dance, and is in vogue among the common people. It is usually performed at the *chingano*, which is a kind of amphitheatre, surrounded by apartments, where refreshments, including strong drinks, are sold, and is generally well filled by both sexes. The dance is performed on a kind of stage, under an open shed. The music is a mixture of Spanish and Indian, and is performed altogether by females, on an old-fashioned long and narrow harp, one end of which rests on the lap of the performer, and the other on the stage, ten feet off. A second girl is seen merrily beating time on the sounding-board of the instrument. On the right is another, strumming the common chords on a wire-string guitar or *kitty*, making, at every vibration of the right hand, a full sweep across all the strings, and varying the chords. In

addition to this, they sang a national love-song, in Spanish, at the top of their voices, one singing a kind of alto; the whole producing a very strange combination of sounds.

The dance is performed by a young man and woman; the former is gaudily decked in a light scarlet jacket, embroidered with gold lace, white pantaloons, red sash, and pumps, with a tiny red cap; whilst that of his partner consists of a gaudy painted muslin dress, quite short and stiffly starched, not a little aided by an ample pair of hips; thrown over all is a rich-coloured French shawl; these, with well-fitted silk stockings, complete her attire. These last are in truth characteristic of the Chilian women of all classes, and they take no pains to conceal them. One not unfrequently sees the extravagance of silk stockings in the washerwomen at their tubs, and even with their hands in the suds. The dress in general fits neatly, and nature is not distorted by tight lacing, or the wearing of corsets. Nothing is worn on the head, and the hair, parted and equally divided from the forehead back to the neck, hangs down in two long plaits on each shoulder to the waist.

The style of dancing is somewhat like a fandango. The couple begin by facing each other and flirting handkerchiefs over each other's heads, then approaching, slowly retreating again, then quickly shooting off to one side, passing under arms without touching, with great agility, rattling and beating time with castanets. Their movements are quite graceful, those of their feet pretty, and withal quite amorous; the gestures may be readily understood, not only by the native audience, but by foreigners. I cannot say much for its moral tendency.

The higher classes of females have the name of being virtuous and estimable in their domestic circle, but we cannot say that they are beautiful. They dress their hair with great care and taste. Their feet are small, and they have a graceful carriage.

The French fashion of dress prevails, and they are just beginning to wear bonnets. The advancement of civilization is rapid; the imitation of foreign habits and customs will soon predominate over those of Chili; and what is of more consequence, some attention is being paid to their education.

A rather singular occurrence took place at a review of the militia on the Plaiancia, one Sunday, by the president, who was attended by his daughter, and a number of the most respectable ladies of the place. They marched down the line, and afterwards danced with the officers on the field, in the presence of the soldiers. All the South Americans are inveterate dancers, the Chilians taking the lead. The taste for music is general, but although they have a number of national airs, few have been printed. All the printed music in common use is foreign, as are the instruments. Pianos are to be seen in almost every house.

The natives have a fondness for flowers, although they are but little cultivated. Few gardens are yet to be seen of any consequence. They require constant irrigation the most of the year, which may account for this want. There are two in the Almendral, surrounded by high walls, and kept in tolerable order; and great attention is paid in these to foreign plants.

We happened to be at Valparaiso during the president's visit, which, connected with the late victory and successes in Peru, caused much rejoicing; every possible attention was shown to the chief magistrate, by both natives and foreigners. Among others, he was taken on an aquatic excursion, on board of a small brigantine, decked out with the flags of all nations, and was accompanied by the civil authorities of Valparaiso, the English admiral, and others. On passing the men-of-war, he received the customary salutes from all but ourselves. We could not fire the guns on account of our chronometers. On his passing, however, the rigging was manned, and we gave him several hearty cheers, which, it was said, much delighted the president and his suite, from the novelty of the compliment.

Three balls were given during the stay of the squadron here, in consequence of the visit of the president (General Prieto); one in honour of the recent victory of Yungai over the Peruvians; the others by the citizens and foreigners to his excellency. As the former was an extraordinary occasion, a description of it will give some insight into the manner in which they conduct these affairs in Chili. All three were managed in a manner that would have been highly creditable in any part of the world.

The place selected for the great ball was between the walls of two large unfinished storehouses, a space of one hundred and fifty feet long by ninety wide, over which temporary arches were built, the whole covered with an awning lined with blue, and studded with stars, from which were suspended some twenty very handsome chandeliers. The whole was carpeted, and the various pillars which supported the roof were decorated with emblems of the victory and nation. At the end opposite to the entrance was a transparency of General Bulnes, the hero of Yungai, surrounded with scrolls of his deeds. Along the corridors which the piazzas formed, ranges of sofas and seats were placed; on the walls were hung rich mirrors and paintings: the former rested on massive pier-tables, in which hundreds of lights were seen reflected, whilst the graceful festoons of the national flags and pennants formed into draperies, intermixed with wreaths of flowers and evergreens in endless variety, encircling emblematic designs of the nation's glory, produced an effect not easily surpassed. The reception-room of the president was hung with scarlet tapestry, decorated with paintings, mirrors, and pier-tables, and brilliantly lighted with chandeliers, &c.

There were likewise card-rooms, smoking-rooms, supper-rooms, and a dressing-room for the ladies, in which were a number of hair-dressers and mantua-makers constantly in attendance. The whole was well got up, unique, and truly splendid; all Valparaiso had sent furniture of every kind, and even the churches had contributed to assist in the great gala fête in commemoration of the national victory.

The company consisted of about five hundred, one-third of whom were females. Many costly uniforms, of various patterns, and not a little fanciful, added to the brilliancy of the scene.

About ten o'clock, the ball was opened by the president, Don Joaquim Prieto, in person, a novel sight to us. He was dressed in a richly em-

broidered coat, gold epaulettes, and field-marshal's sash. He danced a minuet with a lady of Valparaiso, whom he had especially selected, after which the dancing became general, consisting of quadrilles, country-dances, and waltzes, besides which they had the lascivious dances of samacuca, cachuca, and lordean. These partake somewhat of the bolero and fandango, or Spanish and African dance.

By way of interlude, marches and national airs were played and sung. The ball did not break up until eight o'clock next morning, at which hour the president and his daughter were escorted home by a procession of the dancers, with the music playing

national airs, forming rather a grotesque show to the by-standers, from the interchange of hats and outer garments that had taken place.

On reaching General Prieto's quarters, they sang a national hymn, after which many were invited in, where they again continued dancing until noon.

I should not omit to mention that after midnight the ladies underwent a second operation of the toilet.

The whole equalled, if it did not surpass, any of our own fêtes in the United States; indeed all who attended were much surprised, having little idea that Valparaiso could have made so brilliant and tasteful a display of beauty and magnificence.

CHAPTER VII.

CHILI.

CHILI (CONTINUED)—JOURNEY INTO THE INTERIOR—BILOCHES—CASA BLANCA—GEOLOGICAL FORMATION—CURACOVÍ—CUESTA DE ZAPATA—CUESTA DEL PRADO—ROADS—TRANSPORTATION OF GOODS—BEGGARS—PLAIN OF MAYPO—CORDILLERAS—ST. JAGO—MINT—LIBRARY—AMUSEMENTS—FASHIONS—MARKET—CLIMATE—EXCURSION TO THE CORDILLERAS—MOUNTAIN SCENERY—SNOW—GUANACOS—HEAT—RETURN TO ST. JAGO—MAYPOCHO—JOURNEY TO SAN FELIPE—QUILLOTA—TUPONGATI PEAK—CATCHING WILD HORSES—ARRIVAL AT SAN FELIPE DE ACONCAGUA—TOWN OF SAN FELIPE—CHICHA AND AGUARDIENTE—THEIR MANUFACTURE—AGRICULTURAL IMPLEMENTS—COPPER MINES—LAKE ON THE HIGH CORDILLERAS—KINDNESS OF MR. NEWMAN, AN ENGLISH GENTLEMAN, AND HIS LADY—POPULATION OF CHILI.

PREVIOUS to my arrival at Valparaiso, the naturalists and some officers on board the Peacock and Relief had made excursions into the interior. On my arrival, I allowed all those who could be spared, and were desirous of visiting Santiago, sufficient leave to make the trip. Several set out for that city, and some with a view of extending their journey to the Cordilleras beyond.

The bilocheros were eager for opportunities to hire their biloches, a vehicle somewhat resembling a double gig, which is generally used for travelling in Chili. They have a most rickety and worn-out appearance; almost every part appears mended with cords made of hide. They accommodate two passengers; and the time required between Valparaiso and the city (Santiago), is about eighteen or twenty hours. In the shafts a horse is put; a postilion rides one on the left, and sometimes another is placed on the right, both being fastened to the vehicle by lassos of raw-hide proceeding from the saddle. Each vehicle is attended by three bilocheros or drivers, with a drove of twelve or fifteen horses, forming quite a cavalcade.

The bilocheros are very expert at their business. They are excellent riders, having been brought up to this exercise from their infancy, and understand managing their horses, though in a rude way. Their horses are small, but spirited, and bear fatigue well. Their usual speed is about nine or ten miles an hour. Few equipages can compare with these crazy machines, driven, as they sometimes are, pell-mell up hill and down dale, with all their accompaniments of horses, guachos, &c.; and it affords no small amusement to those on foot, to witness the consternation of the affrighted passengers, in momentary expectation of a break-down. It is a difficult matter to acquire composure, on

seeing the numerous temporary lashings, giving ocular proof that accidents have been frequent, however well satisfied one may be with the skill of the conductor. Fortunately the road is excellent, though at this season (May) it is divested of much of its beauty from the want of vegetation. The interest is, however, carried forward to the lofty peaks of the Andes, of whose summits occasional glimpses are had; and the eye glances over the surrounding scenery in the immediate neighbourhood, that would elsewhere be deemed grand, to rest on some high and towering peak. Among these the peak of Tupongati is the most noted, ranking, since the measurement of King, as next in height to the Himmaleh mountains.

The first stopping-place is at Casa Blanca, a small pueblo of some five hundred inhabitants, where travellers usually sleep. The accommodations were good, having been recently much improved. In the neighbourhood is the only tract of woodland to be found in this part of the country. The elevation of Casa Blanca is five hundred and ninety-eight feet above the level of the sea.

The road from Casa Blanca next passes through Curacoví, a small pueblo, where the trap rock first makes its appearance, and then over a high ridge, called the Cuesta des Zapata. This terminates the first plain, and divides it from the second, of similar character, which extends to the Cuesta del Prado. It is passed over by a zigzag road, and was found to be two thousand three hundred and ninety-four feet high. On reaching the top, the view that presents itself is extensive and magnificent.

In front is the extensive plain of Maypo, with here and there a conical mountain standing alone on it. At the extremity of the plain rise the lofty

peaks of the Andes, covered with eternal snow, some reaching above the clouds. They appear but a few hours' ride off, although at a distance of twenty leagues. On either side rise the high ridges of the Cuesta. Beneath lie grazing grounds, extending over the plain, and covered with flocks and herds. Variety and life are given to the whole by the view of the national road, on which are seen numbers of vehicles, mules, &c., threading their way up and down the mountain-side, laden with foreign and domestic products. This is the only road of any extent for wheel-carriages in the country. It is kept in good repair by convicts, who are seen working in chains. A moveable prison or lock-up house, somewhat resembling the cages used in caravans of wild beasts, is used for their accommodation and security at night.

The heavy merchandise is for the most part transported in ox-carts of enormous dimensions. Their wheels are clumsy and without tires, and the whole frame is made strongly with timber pinned together. Their perpendicular sides and rounded tops are wattled with cane and covered with bull's-hide. No iron is used in their structure; wooden pins and raw-hide lashings seem to answer the purpose better. The yoke is set on the heads of the oxen, behind the horns, and fastened to them. The creaking of these carts may be heard for miles, as the drivers never think of greasing the axles to lessen the friction. They are generally drawn by four or eight oxen.

Lighter articles are transported by mules, and immense numbers of these animals are seen on the road at all times.

The mode of changing horses is truly characteristic of the country. The relays are made as soon as the shaft-horse tires; he is quickly taken out, and one of the drove caught with a lasso, and put in his place, when on they go. These relays occur every eight or ten miles; the only relief the poor horses have is a trot out of harness, and without a load. The bilocheros seldom dismount; all is done on horseback. On going up hill, a third or even a fourth horse is soon hitched to the vehicle to assist the draught. The horses are all in good condition, and it is not a little remarkable that they should be so, for I understood that their only food at this season was chopped straw. The teamsters and guachos themselves are equally abstemious. They live mostly upon bread and their favourite chicha, which is made from the grape, and resembles cider; but after it has passed through a fermentation, it is quite intoxicating. The mud huts or ranchos, on the road-side, are filled with happy and contented faces.

Begging is common on the road to the city, and is quite a business. The beggars let themselves to the highest bidders, and value themselves according to their deformities. At Valparaiso two days are allowed in each week for begging.

The plain of Mayo, which reaches to the foot of the Cuesta del Prado, is extremely level, and is almost thirty miles in width, extending to the foot of the Cordilleras. The road leads nearly in a straight line over it to the city of Santiago, which is situated on the eastern side of the plain.

The elevation of Santiago above the sea is fifteen hundred and ninety-one feet, upon the third step or plain from the coast. Its entrance is through avenues bounded by high adobe walls, which shut out

all the view, except the Cordilleras, which tower above and beyond it.

The more the Cordilleras are viewed, the greater appears their attraction. They have at all times an imposing aspect from the neighbourhood of the city. Their irregular and jagged outline is constantly varying under the effects of light and shade. The rays of the setting sun, with the deepening shadows, throw the innumerable peaks into bold relief, and at times produce yellow and red tints, which give a remarkable character to the whole scene. The red tints are often accompanied with a green hue in the sky. The city is surrounded by many fine orchards, gardens, farms, and grazing grounds. The former being enclosed by high adobe walls, give it a rather unpleasant appearance, until the city is fairly entered, when the streets have a fresh and clean look. The city is laid out in squares. Its streets are well paved, and have good sidewalks. This fresh and clean appearance, we afterwards understood, was owing to a law, obliging all to whitewash their houses and walls once a year, a practice which gives a general uniformity, at least in colour, to the whole, and forms an agreeable contrast with the red-tiled roofs. The houses are mostly of one story, built in the form of a hollow square, from twenty to forty feet wide, round which the rooms are situated. The roof projects so as to form a kind of piazza or covered way. The gateway is usually large, and the rooms on each side of it are not connected with the rest of the building, but are rented as shops. Opposite to the gateway is the centre window, guarded by a light and ornamental iron frame, painted green or richly gilt. The court-yard is usually neatly paved with small rounded pebbles from the bed of the Maypocho, arranged in fanciful forms; but in many cases they are laid out in flower-gardens, where roses and geraniums are seen in full bloom.

The river Maypocho runs through one portion of the city, and supplies it with water. In the centre of the city is the great plaza, where the public buildings are situated. These are built of a coarse kind of porphyry, obtained from the mountains, and are on a large scale. The cathedral and palace each occupy one side; in the centre is a fountain, with several statues of Italian marble; too small however in size to have any effect in so large a square. All these buildings are much out of repair, having been at various times damaged by earthquakes.

The cathedral is very large and extensive. Its altar is decked with a great quantity of gold and silver. There are many paintings and hangings, among which is a large number of trophies, taken in their various wars. The niches are filled with wax figures, representing saints; and there are also the remains of two martyrs of the church, in a tolerably good state of preservation.

The place was originally built for the viceroy. It is now appropriated to the accommodation of the president, and the public offices. On the side opposite to the palace is a colonnade, which is not yet finished, and will occupy the whole side of the square. Under its portico are fancy and dry-goods shops, and between the columns various trades, or lace and fringe-makers, are at work. In the evening, this becomes a most busy scene. Females, with large flat baskets before them, are vending

shoes, fruit, and fancy articles ; others are employed in cooking cakes, and the whole lighted up as it is with numerous candles, affords much amusement to the stranger.

The mint occupies a whole square ; it has never yet been completed, and has also suffered greatly from earthquakes. The operation of coining is in the rudest and oldest form. The rolling and cutting are done by mule-power, and the oldest kind of fly-press, with a great screw beam, having enormous balls at the end, is used. The dies employed are made from the male die, in the same way as with us, but they have not the same facilities, and want the modern improvements in the process. A toggle-jointed press was imported from France ; but it was soon put out of order by the workmen, and there being no one to repair it, its use has been abandoned.

The library is extensive, containing several thousand volumes, which formerly belonged to the Jesuits, and many curious manuscripts relating to the Indians.

The amusements are not very remarkable. Santiago, however, boasts of a theatre, and a chingano. There appears to be little business doing, and it may be called a quiet city. The siesta is daily indulged in ; even the shops were shut in the afternoon, and the city is as quiet as midnight. Towards the cool of the evening, the alameda is resorted to. It is a beautiful walk, about a mile in extent, well shaded, and occupies one bank of the river. It is planted with a double row of poplar trees, which seem to thrive well here. Streams of water are constantly running on each side of the walk. Every few yards stone seats are placed, which are at times filled with a well-dressed population. The alameda affords at all times a cool and pleasant promenade.

The evenings are generally passed at tertulias, in visiting socially, or in shopping in the colonnade. The inhabitants are much addicted to gambling. Monte is the game with the higher classes, whilst that of match-penny is the favourite of the lower orders. The Chilian women are remarkable for their ease of manner, kindness, and attention to strangers. They are fond of diversions of any kind, but more particularly those of dancing and music, both of which are much practised. They seem extravagantly fond of music. Dancing they are taught very young. Most of them have good figures, and some would be called pretty ; but their teeth are generally defective, which causes them soon to look old. Their costume varies little from our own, except that the ladies wear no bonnets.

The men follow the European fashions.

The dress of the lower order is a mixture of Spanish and Indian. They are fond of bright colours. Over their shirt and trousers is worn a blue or brown poncha. A high-crowned and small-rimmed hat, tied on under the chin, over a bright-cotton handkerchief on the head, completes their outfit. They are a well-disposed people, and good citizens, and have more the air of contentment than any other nation of South America.

The markets are well supplied. There is one large one near the banks of the Mapocho. It covers an area of four or five acres, and is surrounded by a low building, with a tile roof, supported by columns, under which meats of all kind are sold. The centre is reserved for vegetables,

fruits, flowers, poultry, and small-wares. The market-women are seen seated under awnings, screens, and large umbrellas, which are used to keep off the sun. The place is scrupulously clean, and has a pleasing effect.

The average price of a horse is twelve dollars, but some that are well broken are valued as high as those in the United States.

The climate of Chili is justly celebrated throughout the world, and that of Santiago is deemed delightful even in Chili ; the temperature is usually between 60° and 75°. The country round is extremely arid, and were it not for its mountain streams, which afford the means of irrigation, Chili would be a barren waste for two-thirds of the year. Rains fall only during the winter months, (June to September,) and after they have occurred, the whole country is decked with flowers. The rains often last several days, are excessively heavy, and during their continuance the rivers become impassable torrents. At Santiago, the climate is drier and colder, but snow rarely falls. On the ascent of the Cordilleras, the aridity increases with the cold. The snow was found much in the same state as at Terra del Fuego, lying in patches about the summits. Even the high peak of Tupongati was bare in places, and to judge from appearances, it seldom rains in the highest regions of the Cordilleras, to which cause may be imputed the absence of glaciers.

Several of our gentlemen made an excursion to the Cordilleras, in order to get information in their various departments. I regretted they were not provided with the necessary instruments for ascertaining heights. The party left Santiago in biloches, and travelled to the eastward five leagues, to the "Snow Bank" from which the city is supplied. The ascent was gradual, but quite constant, as no intervening ravines occurred. They then took horses, leaving their biloches to return. Their route after this lay up a valley. On the surrounding heights the guanacoos were seen in great numbers.

As they proceeded they found the middle region was marked by spiny plants, principally burnadesia. The soil was found to be a mixture of loose earth and pieces of rock. On rising higher, the vegetation became almost wholly extinct. Places occurred of an eighth of a mile in breadth destitute of verdure of any kind. The party then ascended a ridge belonging to the main body of the Cordilleras, and at an elevation of about ten thousand feet, they reached its summit. Here they had an extensive view of all the line of the snow peaks. That of Tupongati appeared the most conspicuous, although at a distance of eighty miles. The guide asserted that he could see smoke issuing from its volcano in a faint streak, but it was beyond the vision of our gentlemen. The peak itself from this view of it was quite sharp-pointed. The scene immediately around them was one of grandeur and desolation ; mountain after mountain, separated by immense chasms, to the depth of thousands of feet, and the sides broken in the most fantastic forms imaginable. In these higher parts of the Cordilleras they found a large admixture of the jaspers aluminous rock, which forms the base of the finest porphyries ; also chlorite in abundance. The rock likewise contains fine white chalcodony in irregular straggling masses. Trachytic breccia was observed in various places. The porphyry is

of a dull purple colour, rather lighter than the red sandstone of the United States. No traces of cellular lava were observed, nor of other more recent volcanic productions. No limestone was seen in the regions traversed by our parties; all the lime used at Santiago is obtained from sea-shells; nor were any proper sedimentary rocks seen.

Nothing could be more striking than the complete silence that reigned every where; not a living thing appeared to their view.

After spending some time on the top they began their descent; and after two hours' hard travelling they reached the snow line, and passed the night very comfortably in the open air, with their blankets and pillows, or saddle-cloths. Fuel for a fire they unexpectedly found in abundance: the alpinia umbellifera answering admirably for that purpose, from the quantity of resinous matter it contains. Near their camp was the bank of snow before spoken of, from which the city has been supplied for many years. It covers several acres. The snow line here seemed to have remained constant, and would have afforded a fine opportunity to have verified the rule of Humboldt, but they had no instruments. The height they had ascended was supposed to have been about eleven thousand feet, and the Cordilleras opposite them about four thousand feet higher. The view of the mass of the Cordilleras, in its general outline, was not unlike those of Mont Blanc and other mountains in Switzerland.

Mr. Peale went in search of the guanacoës, and succeeded in killing one, nine feet in length and four feet in height. They were found to frequent only the most inaccessible summits, and are said never to leave the vicinity of the snow. They feed upon several small thorny bushes, which impart a flavour to their flesh, and a smell to their excrement that may be distinguished at some distance from their places of resort. They make a peculiar sound when alarmed, like that of the katydid (*gryllus*). This animal is never hunted for the market, though its flesh is good. The bezoar is often found in its stomach, and is highly prized among the natives and Spaniards as a remedy for various complaints. It is also used as a gum.

All the party suffered greatly from the heat of the sun's rays and the dryness of the atmosphere. Their faces and hands were blistered, and the nose and lips made exceedingly sore, while the reflection of the light from the snow caused a painful sensation to the eyes.

The next day they reached Santiago, whence they returned to the port, as Valparaiso is usually distinguished in the country.

Over the Maypocho at Santiago there is a substantial stone bridge, with five arches. For nine months of almost every year, the bed of the stream is nearly dry. At the time of our visit it was about two yards wide, and several inches deep; but in the winter and spring, during the melting of the snows, it becomes quite a torrent, and from the damage that has been done in former times, they have taken the precaution to wall it in on the side of the city, towards the Cordilleras, for several miles, with stone and hard brick. When swollen it is a quarter of a mile wide, rapid and deep, and would cut off the communication with the surrounding country were it not for the bridge.

Messrs. Couthouy and Dana were desirous of

making a trip to the copper-mines of San Felipe, to which I readily consented, and gave them all the time possible. Although this was short, yet by their indefatigable industry, it afforded some interesting results. They left Valparaiso on the 17th for San Felipe, which is about one hundred miles north of Valparaiso. They were to have taken a barometer with them, in case of ascending some heights, but it was forgotten.

These gentlemen took a bilocha as far as Quillota, a distance of forty miles, and proceeded thence to San Felipe on horses; for the use of which they were to give thirty dollars each, and one dollar extra for the service of the peon who accompanied them, for seven days. The road to Quillota was found good, although many hills and valleys were met with.

For the first twenty-five miles the road passed along the sea-shore, with no elevation over two hundred feet; it was thought equal to the most frequented turnpikes in our own country. At six miles from Valparaiso, the road is cut through a bed of sienite, remarkable for the singular vertical dikes of granite by which it is intersected.

Ten miles before reaching Quillota, the road passes over a level plain, which extends beyond that place. The hills which bound the valley to the south, are of low elevation, until approaching Quillota. Near Quillota, in the south and south-eastern direction, a lofty ridge rises, adjoining the campagna of Quillota, which is one of the high cones used as sea-marks for the harbour of Valparaiso. This is lost sight of at the town, in consequence of it being shut out by an intervening ridge. The town, or city of Quillota, occupies the centre of the valley, and is twenty miles from the sea. They reached it about one hour before sunset, when they stopped at Mr. Blanchard's, who keeps a house for the accommodation of foreigners.

On the 18th they arose at daybreak, at which time the thermometer stood at 36° in the open air, seventy feet above the sea.

The town of Quillota (according to Mr. Blanchard) is embraced within a circumference of three leagues. It contains several churches, of simple construction. The "calle largo," the longest street, is upwards of a league in length. The same authority gives its population at ten thousand inhabitants. The houses are all of one story, and are built of adobes, with thatched roofs. There is an abundance of fine building-stone, but in this land of earthquakes it is considered safest to use the lightest materials. Almost every house has a vineyard attached to it, the grapes of which were of good quality, and very abundant. At some places, although the vintage was half gathered, yet the crop still on the vines was such as would have been considered elsewhere an abundant yield. A portion of the grapes rot upon the vines, as the inhabitants have not the industry or inclination to manufacture them, although by proper attention they would yield a good wine. As it is, they only manufacture some into a hard and acid wine, called *masta*, or boil the juice down to the favourite drink of the lower classes, called *chicha*, which somewhat resembles perry or cider in flavour. The small quantity that is not consumed is distilled into aguardiente, and disposed of at Valparaiso. Besides grapes, considerable quantities of wheat and Indian corn are cultivated. Apples,

pears, and quinces, are also raised. The former are inferior to our own, the latter much superior, and in great plenty.

Oranges were also abundant, but of indifferent flavour.

Quillota is well supplied with water from the river Concon or Aconcagua. The water is led through all the streets and gardens of the place. It is used for all household purposes as taken directly from the gutters, which are the recipients of dirt of every description from the town. For drinking, it is allowed to settle in large jars kept for the purpose.

The intercourse with strangers at Quillota has been much less than at Valparaiso or Santiago, and consequently they are less liberal, and more bigoted. This was particularly shown about four years previous to our visit, by their burning, in the public square, a large number of Bibles in the Spanish language, along with a heap of immoral and indecent pamphlets, in the presence of the civil, military, and ecclesiastical authorities. These Bibles had been distributed by our countryman, Mr. Wheelwright, who has done so much by his enterprise in introducing the communication by steam along the western coast of South America.

On leaving Quillota, they went through the "Calle Largo," and took the southern side of the valley, passing along the foot of the Mellacca Hill, a smooth and rounded elevation, about three hundred feet in height, and a mile and a half in circumference. This hill is covered with a thin soil, formed from the decomposition of its own rocks. The valley now narrows, and in some places is not more than a few hundred feet in width. At about a league from Quillota, they ascended a cuesta of the Quillota ridge, one thousand feet above the plain. On its top they were much gratified with the beautiful prospect. The fruitful plain or vega of Aconcagua, varying in width from one to six miles, extends, to the west, some twenty miles to the ocean, and is lost in the other direction in the mountains; it is watered by pure streams, and covered with farm-houses and hamlets, surrounded by trees and vineyards. To the north-east are the Andes, heaped as it were on each other, until the towering and distant peak of Tupongati, with its giant form, crowns the whole. One feature of the plain was peculiar: the mountains seemed to sink into it as if it were the ocean itself. In some cases the line was so well defined, that one foot could be placed on the plain, and the other on the base of a mountain rising six or seven thousand feet high. The distance of Tupongati is about forty leagues.

Captains King and Fitzroy have made the height of this peak several hundred feet above Chimborazo. The surrounding mountains, though from ten to twelve thousand feet high, and much nearer, sink into insignificance when compared with it. Indeed, all the objects are upon such a grand scale, that they fail to excite the notice that they would attract if situated elsewhere.

The road over the cuesta was narrow, steep, and broken. It descended into a plain, which was found well cultivated, and watered by a branch of the Aconcagua.

The ridges on the northern side of the valley now became more lofty and precipitous, exhibiting the columnar structure more distinctly. The trap

dikes were in some places four feet wide; and in one place, where the rock had been cut to form the road, fourteen dikes were counted within three hundred feet. On their way up the valley the peon's horse knocked up, and they were obliged to step and hire another at the house of a farmer, called Evangelisto Celidono.

On the second cuesta they were gratified by witnessing the mode in which the Chilians capture the wild horses. A party of four or five horsemen, with about twenty dogs, were seen formed in an extended crescent, driving the wild horses towards the river with shouts. All were armed with the lasso, which was swinging over their heads, to be in readiness to entrap the first that attempted to break through the gradually contracting segment; the dogs serving with the riders to head the horses in. They continued to advance, when suddenly a horse with furious speed broke the line, passing near one of the horsemen, and for a moment it was thought he had escaped; the next he was jerked round with a force that seemed sufficient to have broken his neck, the horseman having the moment the lasso was thrown turned round and braced himself for the shock. The captured horse now began to rear and plunge furiously to effect his escape. After becoming somewhat worn out, he was suffered to run, and again suddenly checked. This was repeated several times, when another plan was adopted. The dogs were set on him, and off he went at full run, in the direction of another horseman, who threw his lasso to entangle his legs and precipitate him to the ground. The dogs again roused him, when he again started, and was in like manner brought to a stand; after several trials he became completely exhausted and subdued, when he stood perfectly still, and allowed his captors to lay hands upon him. The shouts of the men, the barking of the dogs, and the scampering of the horses, made the whole scene extremely exciting.

After a toilsome route of three and a half hours, they found themselves surrounded by many branches of the river, whose banks were but a few inches above the water. The peon then acknowledged himself bewildered, and that he had missed his way. Crossing the streams was attended with some danger; for owing to their rapidity and depth they were near sweeping the horses off their legs. Returning a league or two, they fortunately met a muleteer, who put them in the road; but their horses were now so exhausted, that they were compelled to seek lodgings at a rancho. After applying at several, they succeeded in getting a place to lie in, after making many promises of liberal payment. A similar course, notwithstanding a positive refusal or denial of having any provisions, procured them a casuela, served in a large wooden bowl, with wooden spoons. This is a sort of Chilian chowder, with a plentiful supply of garlic, onions, Chili pepper, &c., and one of the favourite dishes of the country. In three days' ride they had passed over about sixty miles; the highest temperature experienced was 65°5', the lowest 35°7'. At the rancho, where they stopped for the night, the temperature fell 20°5' in three hours.

They passed the night with the usual annoyance in most houses in Chili, for fleas were found in great abundance. In the morning the temperature was 35°5', and the ground covered with hoar frost. This rancho was supposed to be about one

hundred feet above the level of the sea. The mountains in the immediate neighbourhood were from six to seven thousand feet high, exhibiting a gorgeous appearance as the sunbeams lighted them up, and at times the brilliancy was so great as to dazzle the eye. They left the rancho at seven o'clock, and although it was only ten miles distant, they did not reach San Felipe before eleven. The road passed over a third cuesta, which exhibited a regular columnar structure. The hills inclining to the northward, open and present to view the broad plain of Aconcagua. San Felipe de Aconcagua stands about fifteen miles from the foot of the Andes, and the mountains are seen from thence in all their grandeur. The peak of Tupungati is, however, lost sight of as the town is approached, disappearing behind the nearer snowy peaks. This mountain is situated on the dividing or eastern ridge of the Cordilleras, and within the United Provinces of La Plata.

On arriving at San Felipe they proceeded at once to the house of Mr. Henry Newman, an English gentleman resident there, and engaged in mining operations, to whom they had letters. Mr. Newman was not at home, but they were hospitably received by his lady, a native of Chili, who treated them with great kindness and attention. In the absence of her husband, she made them acquainted with an American gentleman, a Mr. Chase, who happened to be on a visit there from Santiago. He had been in Chili since the failure of the expedition of Carrera, when he, with several of his companions, settled in Chili, and afterwards engaged in mining operations. He had several times amassed a large property, and as often lost it by the revolutions that had taken place in the country. He is now engaged in working a silver-mine in the vicinity of Santiago, and attempting the German process of smelting, as there are vast quantities of ore, containing a large per centage of silver, which have hitherto been neglected, from the impracticability of separating the silver by the usual method. There is now only one survivor from among the thirty persons who settled in Chili with Mr. Chase. From his operations he expects in a few years to realize a large fortune.

The town of San Felipe is laid out with great regularity, in the form of a square, surrounded by extensive alamedas, which are planted with Lombardy poplars. Mr. Newman gave the population at from twelve to thirteen thousand. In the centre of the town is a large open square, one side of which is occupied by the town-hall and offices connected with the municipality. Opposite are the church and barracks, and the remaining sides are occupied with shops and private dwellings. The houses are all of one story, and are in a good style of building. The better class of houses stand some distance back from the street, and are decorated tastefully with paintings in fresco on the walls. Roses and jessamines were seen in every court-yard, and the gardens are well filled with various fruits, apples, peaches, pears, grapes, pomegranates, oranges, lemons, and quinces; the latter are remarkably fine, and in great plenty. The houses, as in other parts of Chili, have no fire-places, in lieu of which they use *braseros*, or pans of live coal, when heat is required. Mr. Chase took them to a friend of his to see the process of manufacturing the *acida* and *aguardiente* of the

country. The whole process is carried on in a large court behind the house. The grapes are brought in large baskets, or hand-barrows, made with poles and raw hide, and are emptied in heaps under an open shed. Here several small boards are placed, on which the grapes are laid by the men, who separate them from the stalks by rolling them rapidly in their hands, the grapes falling along the boards, which are inclined into a large vat, where they are trodden out by men. The juice, which runs off through a rude strainer at one end, is received into large earthen jars; the pumice, or residuum, is from time to time taken out of the vat, and placed on a platform, when more juice is expressed, by laying boards and heavy stones upon it. That part which is intended for wine proper, or the "must," is received, like the first, into earthen jars, where it undergoes the requisite fermentation, and receives a small quantity of brandy, or the *aguardiente* of the country, to give it body. The *chicha* is made by boiling down the clear grape-juice, after fermentation, for several hours over a slow fire. After this process it was put in enormous earthen jars, containing sixty to one hundred and twenty gallons, which are covered over, and tightly luted. The portion not required for consumption is afterwards distilled with the pumice into *aguardiente* of the country. The stills are of the simplest construction, being nothing more than a number of large earthen pots, holding from eighty to one hundred gallons, placed in the ground over a long narrow oven. Instead of a worm, a straight pipe of copper is used, about twenty feet long; one of these was inserted into each pot or jar, and to effect the condensation, a stream of water from the river was led so as to pass over them. All the agricultural implements are equally rude and primitive. The ploughs are nothing more than a crooked stick, with the share-end pointed, and hardened by charring. Notwithstanding these disadvantages, they are enabled to raise large crops, and bring their farms into tolerable condition.

In the evening they had the pleasure of seeing Mr. Newman, who returned; and his reception of his guests was, if possible, even more kind than that of his good lady. Learning that our gentlemen wished to visit some of the mines in the neighbourhood, he immediately made arrangement to send his agent to his own establishment, five leagues beyond San Felipe, and provided them horses and mules, in order that their own might recruit for their return journey. The temperature at San Felipe varied, between noon and 10 p.m., from 63° to 49°. The night was remarkably clear and fine.

The next morning they started, with Mr. George Alderson, for the mines, which are near the summit of the first Cordillera, on the Mendoza road, and about three thousand feet above the level of the sea. They were here informed, that in consequence of the late heavy falls of snow, the roads were all covered and congealed, and that it extended several thousand feet below the limit of perpetual snow.

The part of this valley where the ranchos are situated is called La Vega de Jaquel. This is the principal smelting-place, the ore being brought here by mules from the foot of the mountain, down whose sides it is thrown from the mines. The descent is about two thousand feet, and very steep.

Mr. Alderson stated that it took thirty seconds for the ore to descend. The face of the mountain from long usage in this way is worn quite smooth.

Mr. Newman had previously lost much property here by the burning of his whole establishment, excepting two buildings, fire having been communicated to the thatched roof by the sparks from the furnace during a tornado that passed over. So rapidly had the flames spread, that it was with difficulty that Mr. Newman and his agent saved their lives. Besides the loss of buildings, a large quantity of machinery lately imported from England was destroyed.

On the 21st May, they set out on mules for the mines, accompanied by Mr. Alderson, and reached them about ten o'clock. Their first act was to change their boots for a pair of raw-hide shoes, such as are used by the miners, in order to insure a safer footing. They now entered the principal gallery, which was about seven feet high and five broad, excavated for about twenty yards horizontally; it then divides into several branches, and these again into others, from fifteen to twenty yards in length.

The greatest extent of any one gallery is about thirty feet. The mountain has been penetrated horizontally to about four hundred feet, in the direction of north-east to east-north-east, as the veins run, and vertically to a depth of about one hundred and fifty feet. Each person was provided with a tallow candle stuck in the end of a split stick six feet long, and caution was given not to lose sight of the guide, for the galleries, although small, are so numerous, and communicate with each other so frequently, that a person might easily be lost.

The ladders, or rather posts, by which the descents are made are not a little dangerous.

There appears to be little system in working the mines, and little knowledge of the structure of the rock or the courses of the veins. Mr. Alderson mentioned that a few months previously, they had been working for several weeks extending a shaft, without meeting a particle of ore to repay their labour, and they were just about giving up the search, when the mayoral, or master-workman, declaring he would have a last blow for luck, struck the rock with all his force. This detached a large fragment, and to their surprise and delight laid open a vein which proved the largest and richest that had been worked for many years. From this it would appear that the employment is attended with much uncertainty; and after exhausting one of these treasure deposits, there are no means or signs known to them by which they can ascertain the best direction to take to discover another.

The mines, by the light of the numerous candles, exhibited all the shades of green, blue, yellow, purple, bronze, &c., having a metallic and lustrous appearance. The confined air, with the heat of so many candles, made it quite oppressive; and persons who have not often visited mines, are subject to faintness and vertigo from this cause. Mr. Alderson and Mr. Dana were both affected by it. It was the first time the former had ever penetrated so far, Mr. Newman and himself being governed by the report of the mayoral, and the ore brought up in their operations. The miners were not a little astonished at our gentlemen loading themselves, besides the specimens of ores, with the *piebra bruta*,

which they considered of no value. The manner of labour in the mines is in as rude a state as it was found in the agricultural branches of industry. A clumsy pick-axe, a short crowbar, a stone-cutter's chisel, and an oblong iron hammer of twenty-five pounds weight, were the only tools. The hammer is only used when the ore is too high to be reached with the pick or crowbar. The miners, from the constant exercise of their arms and chest, have them well developed, and appear brawny figures. When the ore is too tough to be removed by the ordinary methods, they blast it off in small fragments, not daring to use large blasts, lest the rock should cave in upon them. Only a few weeks previous to their visit, the mayoral, while at the furthest end of the gallery, was alarmed by the rattling down of some stones, and before he could retreat, the walls caved in for several yards outside of where he was, leaving but a small space. It required eighteen hours of unceasing effort by nearly a hundred men to extricate him from his perilous situation.

The ore is brought to the mouth of the mine on the backs of men, in sacks made of raw hide, and holding about one hundred pounds. Whenever a sufficient quantity to load a drove of mules is extracted, it is thrown down the mountain slide, and then carried to the furnace at Jaquel. Only seventeen miners were employed; previous to this the number employed was one hundred. Whenever a richer vein was struck a larger number were employed, who could always be easily obtained by foreigners, the natives preferring to work for them, as they say whatever the profits or losses may be, they are sure of being regularly paid. The wages are small—from three to four dollars per month, in addition to their food. They are allowed to draw a third of their pay on the last Saturday of every month, and full settlement is made twice a year. They are supplied with clothing and other necessities, out of which the agent makes a per centage, and which is charged against their wages.

There is one admirable regulation of the Chilean government, that of not permitting liquors to be brought within a league of any mine, under a severe penalty, which is strictly enforced. The cost of the maintenance of each workman is not great; they are allowed as rations for breakfast four handfuls of dried figs, and the same of walnuts: value about three cents. For dinner they have bread, and fresh beef or pork. Small stores, as sugar and tea, they find themselves. One of the greatest inconveniences, and which is attended with some expense, is the supply of the miners with water, which has to be brought up the mountains.

The miners' huts are the last dwellings on the Chilean side of the Andes. Mr. Alderson mentioned, that in five hours' ride from thence, a lake was reported to exist, three leagues in circumference, on the summit of a conical mountain, which is surrounded by a beach of sand and gravel, and has no outlet. Several persons confirmed this statement as to the existence of the lake, that it had no visible outlet, and that the water was always at the same level. Although desirous of visiting so interesting a spot, they found they had not time left to accomplish it.

On the 22nd they set out on their return, after a

good deal of delay, owing to the stupidity of their peon, who had indulged too much in his favourite chicha. Nothing, it is proper to add, could exceed the kindness and attention shown them by Mr. Newman, his lady, and Mr. Chase. Mr. Alderson, the agent, devoted himself to them for two days, during which time he left nothing undone that could promote and forward the object of their visit. It affords me great pleasure to bear testimony also to the numerous fine specimens of copper, &c., from other mines, which Mr. Newman presented to the Expedition, and to return him our thanks for them, and the kind attention of his lady.

Having heard much about the rise of the coast, from the effects of earthquakes, I was desirous of gaining all the information in relation to this subject. From the residents the accounts are so contradictory, that no correct intelligence can be obtained. The decrease in the depth of the bay, I have before said, can be accounted for, and undoubtedly is owing, so far as it has taken place, to the wash of the hills; and the formation of a new street which has been reclaimed from the bay, has given rise to the idea, and it is pointed out as having been built upon ground left dry by the earthquake of 1832. Several of our naturalists made a close examination of the coast in the neighbourhood, the result of which on the minds of all was, that there was no proof of elevation. That changes in the beaches, through the agency of the heavy rollers and the northers that yearly occur, are constantly going on, is quite evident; but these, as one would naturally suppose, increase the shore only in some places, while in others they are wearing it away.

Earthquakes do not appear to happen at any particular season. The great one of 1730 was in July; that of 1751, in May; and those of 1822 and 1835, both of which did much damage, in February.

Slight shocks of earthquakes are experienced very frequently throughout Chili. One during our stay, on the 28th of May, started every one from their beds, but the shock was not repeated. No peculiar state of the weather, or other phenomenon, seems to precede them. That of 1835 nearly destroyed the towns of Concepcion, Talcahuana, Arauco, Angeles, Coluna, Chillan, Talca, and Cauquenes. It was very slightly felt in Valparaiso, and scarcely at all further north. The sea receded in Valparaiso two feet, and returned immediately. The ground seemed to swell under the feet. In Juan Fernandez it was very severely felt; and the following extract from the report of the then governor of that island to the supreme government is interesting: "I was walking at the castle of Santa Bar-

bara, with the commandant of the garrison, when we suddenly observed that the sea had come over the mole. Fearing great damage, I hastened to have the boats drawn from under a shed, and prepared for use. At the same moment we heard a loud roaring, as of thunder, and saw a white column, like smoke, rise from the sea, a short distance from the place called '*El Punto de Bacallao*,' and then felt the earth move. The sea retired about two hundred feet, when it commenced returning with great violence. This time it carried nearly every thing with it; broke down all the houses and huts but the one recently built of stone and mortar to contain provisions. Happily, this withstood its violence, although the water ascended more than six feet up its sides. It then retired again to its usual height. Constant shocks were felt during the night; and the sea, at the place before mentioned, continued throwing up water and smoke like a volcano."

Chili abounds with volcanic mountains, but few of them are in an active state of eruption; which may account for the frequency of earthquakes. The peak of Tupongati is the only one in activity in this section. Our travellers to the Cordilleras were not fortunate enough to get a sight of it at night.

The population of Chili may be estimated at one million two hundred thousand.

Santiago contains about sixty thousand inhabitants, and is one of the few South American capitals, perhaps the only one, that is increasing in wealth and population. It has various private seminaries for both sexes, a national institute or college, on a liberal footing, an extensive hospital, a medical college, and a military academy. The Congress meets on the 1st of June every year, when the President delivers his message.

Valparaiso numbers thirty thousand inhabitants, and is one of the most flourishing sea-ports in the world. Its population has quintupled within the last twenty years, and it is rapidly advancing in every improvement, growing out of an increasing foreign commerce, and the enterprise of its inhabitants, fostered and encouraged as they are by government.

The mining districts are to the north, and the grain country to the south. Extensive flour-mills are now in work in Concepcion and its neighbourhood: the machinery is brought from the United States.

There is very little variation in the climate. During what is called the winter the thermometer occasionally falls for a few hours to 52°, but the mean of it throughout the year, at mid-day, would be 65°. In the evening and morning, it is at 60°.

CHAPTER VIII.

PERU.

PORPOISE SAILS—DIFFICULTIES OF LEAVING THE BAY—REGULATIONS OF PORT BADLY OBSERVED—CONDUCT OF THE CAPTAIN OF HAMBURG VESSEL—PART COMPANY WITH PEACOCK AND TENDER—ZODIACAL LIGHTS—MAKE THE COAST OF PERU—ENTER BOUQUERON PASSAGE—ISLAND OF SAN LORENZO—BURYING-GROUND—ARRIVAL OF FALMOUTH—DESERTERS—CONDUCT OF CREW OF RELIEF—PUNISHMENT—EFFECTUAL SUPPRESSION OF SUCH CONDUCT—COURT-MARTIAL—CHANGE OF ANCHORAGE TO CALLAO—VESSELS IN PORT—CASTLE—DESCRIPTION OF HOUSES—RELIGIOUS PRACTICES—MARKET—OLD CALLAO—EFFECTS OF EARTHQUAKE—VAULTS FOR DEPOSITING THE DEAD—POPULATION OF CALLAO—ROAD TO LIMA—BELLA VISTA—APPROACH TO LIMA—ENTRANCE AND APPEARANCE—ITS PLAN—AMUSEMENTS—SAYA AND MANTA—ITS PRIVILEGES—HOUSES—PORTALES OR ARCADES—PALACE—FOUNTAIN—CATHEDRAL—CRYPT—MARKET—CONVENT OF SAN FRANCISCO—LIBRARY—SIGNATURE OF PIZARRO—CLASSES OF NATIVES—NEWSPAPERS—EARTHQUAKES—CLIMATE—RAIN—THE RIMAC.

On the 29th of May 1830, the Porpoise sailed for Callao, in order that some repairs might be made on her, which our time here did not admit of. At Valparaiso the weather was extremely unfavourable for astronomical observations. I had been in great hopes of being able to obtain a series of moon culminating stars and occultations, but no opportunity occurred, so that I had to content myself with those for rating the chronometers, and to connect this port with Callao. The longitude adopted for Fort San Antonio, was $71^{\circ} 39' 20''$ W., which is the last determination of it by King and Fitzroy.

On the 4th of June we made an attempt to get out of the bay, but were obliged again to cast anchor. At this season of the year, light northerly winds usually prevail, and a heavy swell frequently sets in the bay, making the roadstead very uncomfortable, and at times dangerous. The vessels are too much crowded, and the regulations of the port are not sufficiently attended to.

I was not a little amused with the master of a Hamburg barque, who dropped his anchor so as to foul the berth of my ship, and when he brought up, swung close alongside. He seemed perfectly satisfied with his situation, and apparently knew little about his business, showing all the doggedness of his countrymen. The weather looking threatening, I sent him word to move, stating that in case of a change of wind, he would be greatly injured. He quietly replied that his vessel was made of teak, and that his underwriters or my government would pay his damages, and that he could stand a good deal of grinding! Without more ado, I sent an officer and men, and put him at once out of my way.

On the 6th, we had a breeze from the southward and eastward, and immediately got under way with the squadron, and succeeded in making an offing. As we opened the land to the southward, my view and thoughts wandered in that direction, hoping that still, and at the last moment, the missing tender might heave in sight. But no white speck was seen, nor any thing that could cause a ray of hope that she might yet be in existence; and my fears foreboded what has since proved too true,—she and her crew had perished.

On the second day after leaving Valparaiso, we had a fresh gale from the northward, accompanied with much sea. During the night, in thick weather,

we lost sight of the Peacock and Flying-Fish. On the 9th we got beyond the wind, which blows along the coast from the northward, and our weather improved, exchanging fog, rain, mist, and contrary winds, for clear weather, and winds from the south-west.

On the 20th, in the evening, we passed through the Bouqueron Passage, having got several casts of the lead in three and a quarter fathoms water; and by the assistance of the lights of the other vessels, anchored near the rest of the squadron at San Lorenzo, after a passage of thirteen days. We found them all well, and proceeding rapidly with their repairs. The Peacock and Flying-Fish arrived two days before us.

On receiving the reports of the commanders of the different vessels, active operations were at once begun to refit, replenish our stores, and complete our duties. The necessary changes in officers and men were made, in consequence of my determination to send the Relief home. This I resolved to do on several accounts. I have stated that from the first I found her ill-adapted to the service; her sailing I saw would retard all my operations, and be a constant source of anxiety to me; and I felt that I already had objects enough without her to occupy and engross my attention. The expense was another consideration, which I conceived myself unauthorized to subject the government to, particularly as I found on calculation, that for one-tenth of the sum it would cost to keep her, I could send our stores and provisions to any part of the Pacific.

We found it necessary to have the Relief smoked, in order to destroy the rats with which she was infested, to save our stores from further damage. During this time the repairs of the Porpoise had been completed, and the usual observations for rating our chronometers, and with the magnetic instruments, were made on shore; and such officers as could be spared allowed to visit Lima. The naturalists were also busy in their several departments. We remained at San Lorenzo ten days, during which time its three highest points were measured with barometers at the same time. The result gave eight hundred and ninety-six feet for the southern, nine hundred and twenty for the middle, and twelve hundred and eighty-four for the northern summit. Upon the latter the clouds generally rest, and it is the only place on the island where vegetation is enabled to exist. The others

are all barren sandy hills. It is said that the only plant which has been cultivated is the potato, and that only on the north peak. This becomes possible there from the moisture of the clouds, and their shielding it from the hot sun.

The geological structure of the island is principally composed of limestone, clay, and slate. It presents a beautiful stratification. Gypsum is found in some places between the strata, and crystals of selenite are met with in one or two localities. Quantities of shell-fish are found on the shore, and the waters abound with excellent fish.

The burying-ground is the only object of interest here. The graves are covered with white shells, and a white board, on which is inscribed the name, &c. They appear to be mostly of Englishmen and Americans, and it would seem that the mortality had been great. But when one comes to consider the large number of men-of-war which have been lying in the bay, and the period of time elapsed, the number of interments do not seem large.

It was with much pleasure we greeted the arrival of the Falmouth, Captain McKeever, whose kindness in supplying our wants, and forwarding our operations, we again experienced. The essential and timely aid he gave me, in exchanging the launch and first cutter of his ship, for materials to build one, which I had brought from Valparaiso for that purpose, prevented our detention here.

The Falmouth brought from Valparaiso three deserters from the squadron, who had been apprehended by Lieutenant Craven, and from whom I received a report, stating that two of them, Blake and Lester, had been guilty not only of desertion, but that their desertions had been attended with very aggravated circumstances. Just about this time the stores were delivering from the Relief. Among them was a quantity of whiskey for the other vessels. The marines who were placed on duty over the spirit-room as guard, with six persons employed in moving it, got drunk by stealing the liquor, and her whole crew became riotous. The delinquents were ordered on board my ship in confinement. These were court-martial offences, but the duties of the squadron would not permit me to order a court for their trial, without great loss of time and detriment to the service. To let such offences pass with the ordinary punishment of twelve lashes, would have been in the eyes of the crew to have overlooked their crime altogether. I was, therefore, compelled, in order to preserve order and good discipline, to inflict what I deemed a proper punishment, and ordered them each to receive twenty-four lashes, excepting Blake and Lester, who received thirty-six and forty-one. This was awarding to each about one-tenth of what a court-martial would have inflicted; yet it was such an example as thoroughly convinced the men that they could not offend with impunity. This was, I am well satisfied, considered at the time as little or no punishment for the crimes of which they had been guilty; but I felt satisfied that the prompt and decided manner in which it was administered, would have the desired effect of preserving the proper discipline, and preventing its recurrence. In this I was not disappointed. I should not have made this statement, had it not been that this was the sole charge, out of eleven, spread out into thirty-six specifications, on which a court of thirteen members, after an investigation of three

weeks, could find I had transgressed the laws of the navy in the smallest degree. In justification of my course on this occasion, I could not but believe that the following clause of my instructions from the Hon. J. K. Paulding, secretary of the navy, ought to have sufficed: "In the prosecution of these long and devious voyages, you will necessarily be placed in situations which cannot be anticipated, and in which sometimes your own judgment and discretion, and at others necessity, must be your guide." Under this I acted. I am fully satisfied that in this case circumstances did occur, which in the language of my instructions did make "necessity my guide," and I fully believe that in so doing I promoted the objects of the expedition, the honour of the navy, and the glory of the country.

On the 30th of June, the squadron went over to Callao.

The bay of Callao is too well known to require much to be said of it. The climate, combined with the prevailing winds, make it a fine harbour. The island of San Lorenzo protects it on the west from the swell of the ocean, but its northern side is entirely exposed; there is no danger to be apprehended from that quarter. A few miles to the north the influence of San Lorenzo ceases; the surf there breaks very heavily upon the beach, and prevents any landing.

The gradual manner in which the extensive plain rises from Callao towards Lima, seems to give a very erroneous idea of the situation of the city. From the bay it is seen quite distinctly, about six miles distant, and does not appear to be elevated; yet I measured the height of Mr. Bartlett's house above the level of the sea by sympiesometer, and found it four hundred and twenty feet. The rise would be scarcely perceptible to a stranger passing over the road, or one who had not a practised eye.

Since my visit to Callao in 1821, it had much altered, and for the better, notwithstanding the vicissitudes it has gone through since that time. A fine mole has been erected, surrounded by an iron railing. On it is a guard-house, with soldiers lounging about, and some two or three on guard.

The mole affords every convenience for landing from small vessels and boats. The streets of Callao have been made much wider, and the town has a more decent appearance. Water is conducted from the canal to the mole, and a railway takes the goods to the fortress, which is now converted into a dépôt. This place, the sea-port of Lima, must be one of the great resorts of shipping, not only for its safety, but for the convenience of providing supplies. The best idea of its trade will be formed from the number of vessels that frequent it. I have understood that there is generally about the same number as we found in port, namely, forty-two, nine of which were ships of war: five American, two French, one Chilean, and thirty-five Peruvian merchantmen, large and small.

The castle of Callao has become celebrated in history, and has long been the key of Peru. Whichever party had it in possession, were considered as the possessors of the country. It is now converted to a better use, viz. that of a custom-house, and is nearly dismantled. Only five of its guns remain, out of one hundred and forty-five, which it is said to have mounted. During our visit

there the Chilian troops had possession of the country, which they had held since the battle of Yungai. Most of the buildings are undergoing repairs since the late contest.

It is said that the fortress is to be demolished, and thus the peace of Callao will in a great measure be secured.

The principal street of Callao runs parallel with the bay. There are a few tolerably well-built two-story houses on the main street, which is paved. These houses are built of adobes, and have flat roofs, which is no inconvenience here, in consequence of the absence of heavy rains. The interior of the houses is of the commonest kind of work. The partition walls are built of cane, closely laced together. The houses of the common people are of one story, and about ten feet high; some of them have a grated window, but most of them only a doorway and one room. Others are seen that hardly deserve the name of houses, being nothing more than mud walls, with holes covered with a mat, and the same overhead.

The outskirts of Callao deserve mentioning only for their excessive filth; and were it not for the fine climate it would be the hot-bed of pestilence. One feels glad to escape from this neighbourhood.

The donations to the clergy or priests, at two small chapels, are collected on Saturdays from the inhabitants. On the evening of the same day, the devotees of the church, headed by the priest, carry a small portable altar through the streets, decorated with much tinsel, and various-coloured glass lamps, on which is a rude painting of the Virgin. As they walk, they chant their prayers.

The market, though there is nothing else remarkable about it, exhibits many of the peculiar customs of the country. It is held in a square of about one and a half acres. The stands for selling meat are placed indiscriminately, or without order. Beef is sold for from four to six cents the pound, is cut in the direction of its fibre, and looks filthy. It is killed on the commons, and the hide, head, and horns are left for the buzzards and dogs. The rest is brought to market on the backs of donkeys. Chickens are cut up to suit purchasers. Fish and vegetables are abundant, and of good kinds, and good fruit may be had if bespoken. In this case it is brought from Lima. Every thing confirms, on landing, the truth of the geographical adage, "In Peru it never rains." It appears every where dusty and parched up.

The situation of old Callao is still visible under the water, and though an interesting object, becomes a melancholy one, when one thinks of the havoc a few minutes effected. The very foundation seems to have been upturned and shaken to pieces, and the whole submerged by a mighty wave. The wonder is that any one escaped to tell the tale.

Two crosses mark the height to which the sea rose. The upper one, one-third of the way to Lima, indicates the extreme distance to which the water flowed; the lower one marks the place whither the Spanish frigate was carried. I very much doubt the truth of either. I can easily conceive that a great wave would be sufficient to carry a large vessel from her moorings half a mile inland, but I cannot imagine how the water should have reached the height of one hundred and fifty feet at least above the level of the sea, and yet permitted two hundred inhabitants of old Callao to have escaped

on the walls of a church which are not half that height.

Outside the walls of the fortress are several large vaults, filled with the dead, in all stages of decay, and on which the vultures were gorging themselves: this was a revolting spectacle. Indeed, it is truly surprising that the higher classes, and those in immediate authority, should not feel the necessity of appearing more civilized in the disposition of their dead. Many are thrown in naked, and covered only with a few inches of sand. Great numbers of skeletons are still seen with pieces of clothing hanging to them. Dogs and vultures in great numbers were every where feeding upon the dead, or standing aloof fairly gorged with their disgusting repast. If any thing is calculated to make a people brutal, and to prevent the inculcation of proper feeling, it is such revolting sights as these.

Callao is said to contain between two and three thousand inhabitants, but this number, from the appearance of the place, seems to be overrated. Several new buildings are going up, which proves, that notwithstanding the times of revolution, they still persist in carrying on improvements. The principal street is about a third of a mile in length, and is tolerably well paved, with side-walks. Billiard-signs stare you in the face. This, I presume, may be set down as the great amusement, to which may be added the favourite *monté* at night.

Coaches, or rather omnibusses, run several times a day to Lima. The old accounts of robberies on the road to Lima, are still fresh in the mouths of strangers. In times of revolution it was infested by robbers, but the steps taken by government have effectually put a stop to them.

On the road to Lima is Bella Vista; but it is in ruins, and has been so ever since the revolution. It was generally the outpost or battle-ground of the two parties, and although the soil in the plain which borders the sea is extremely fertile, consisting of decomposed rock, containing the elements of fertility in the greatest abundance, it now appears a neglected waste. Attention to its cultivation and irrigation would make it a perfect garden. On approaching Lima, the gardens and fields are found to be cultivated and well irrigated. Fields of Indian corn are seen, some fully ripe, some half-grown, and others just shooting up,—a novel sight to us. This bears testimony not only to the fineness of the climate, but to the fertility of the soil. The gardens near the city are filled to profusion with fruits of all descriptions.

The road, on its near approach to the city, forms an avenue of about a mile in length. This, in its prosperous days, was the usual evening drive, and afforded a most agreeable one. On each side are gardens filled with orange-trees, the fragrance of whose flowers, and the beauty and variety of the fruit, added to its pleasures. It is now going to decay from utter neglect. Its rows of willows, and the streams of running water on each side, though forming its great attraction, will, if suffered to remain without attention, be completely destroyed. No one seems to take interest in the public works. So marked a difference from Chili could not but be observed.

At Lima I was struck with the change that had taken place since my former visit. Every thing now betokens poverty and decay; a sad change

from its former splendour and wealth. This appearance was observed not only in the city, but also among the inhabitants. Whole families have been swept off, and their former attendants, or strangers, have become the possessors of their houses and property.

The country has been a scene of commotion and revolution for the last twenty-five years, of which Lima for a long time was the centre. The fate of Lower Peru being entirely dependent on it, and the fortress of Callao, the alternate possessors have stripped it and its inhabitants in every way in their power. It may with truth be designated a declining city.

The neglected walls and ruined tenements, the want of stir and life among the people, are sad evidences of this decay. The population is now said to be about forty-five thousand, although in former times it has been supposed to amount to as many as sixty-five or seventy thousand.

The aspect of the city, especially a bird's-eye view from the neighbouring hills, gives to the eye of the stranger the appearance of ruins. There are few buildings that have the look of durability, and no new ones have been put up for the last forty years. The plan of the city combines more advantages than any other that could have been adopted for the locality. The streets are at right angles, and all sufficiently broad. Those which run with the declivity of the ground, north-west and south-east, have water flowing through their middle. The uses to which these streams are put, and the numerous buzzards that frequent them, give the stranger any other idea than that of cleanliness. The buzzards are protected by law, and may be seen fighting for their food in the gutters, regardless of passers; or sitting on the tops of the houses, thirty or forty in a row, watching for more food.

Great attention has been paid to laying out the alameda, which is on the north side of the city. Its centre is ornamented with a number of fountains; its walks are well shaded on each side with trees; and the running water adds to its freshness: all unite to form a delightful promenade. In the cool of the evening it is much frequented, and its stone seats are occupied by numbers of citizens. This is the best place to get a view of the inhabitants; and notwithstanding their internal commotions, they appear fully to enjoy their cigaritas, which they are constantly smoking. The peculiar dress of the ladies is here seen to the best advantage, and, however fitted it may be to cover intrigue, is not, certainly, adapted to the display of beauty. A more awkward and absurd dress cannot well be conceived. It is by no means indicative of the wearer's rank, for frequently this disguise is ragged and tattered, and assumed under its most forbidding aspect to deceive, or carry on an intrigue, of which it is almost an effectual cloak.

I never could behold these dresses without considering them as an emblem of the wretched condition of domestic society in this far-famed city.

The saya and manto were originally intended as a retiring, modest dress, to mark reserve, to insure seclusion, and to enable ladies to go abroad without an escort. The general term for the wearers is *Tapada*, and they were always held sacred from insult. *Tapada* is likewise applied to a dress which is also frequently seen, viz. a shawl worn over the

head, so as to cover the nose, mouth, and forehead. None but the most intimate friend can know the wearers, who frequent the theatres in this disguise. It is to be regretted, that it is now worn for very different purposes from its original intention. Intrigues of all kinds are said to be carried on under it. It enables the wearer to mix in all societies, and to frequent any place of amusement, without being known, and, even if suspected by her husband or relatives, the law of custom would protect her from discovery. In this dress, it is said, a wife will pass her own husband when she may be walking with her lover, and the husband may make love to his wife, without being aware it is she.

The saya is a silk petticoat, with numerous small vertical plaits, containing about thirty yards of silk, and costing fifty or sixty dollars. It is drawn in close at the bottom of the dress, so that the wearer is obliged to make very short steps (ten inches). It is a little elastic, and conforms to the shape, whether natural or artificial, from the waist down. The manto is a kind of cloak, of black silk. It is fastened to the saya at the waist, and brought over the head and shoulders from behind, concealing every thing but one eye, and one hand, in which is usually seen a cross, or whose fingers are well ornamented with jewels. Before the manto is arranged, a French shawl of bright colours is thrown over the shoulders, and brought between the openings of the manto in front, hanging down nearly to the feet. The loose saya is also much worn: this is not contracted at the bottom, and in walking has a great swing from side to side.

The walk of the Lima ladies is graceful and pretty, and they usually have small feet and hands.

The houses are built of sun-burnt brick, cane, and small timber. All those of the better class have small balconies to the second story. Most of the houses are of two stories, and they generally have an archway from the street, secured by a strong portal, leading into an open court. The lower, or ground-floor, is used as storc-houses, stables, &c. This peculiar manner of building is intended as a security against the effects of earthquakes. The housetops are a depository for all kinds of rubbish, and the accumulation of dust is great. The staircase leading to the upper story is generally handsome, and decorated with fresco paintings, which are, however, far below mediocrity. This style of building is well adapted to the climate.

The portales or arcades is one of the most attractive places for the stranger. He is there sure at all hours to see more of life in Lima than at any other place. They are built on two sides of the plaza. The ground-floor is occupied as shops, where all kinds of dry goods and fancy articles are sold. Between the columns, next the plaza, are many lace and fringe-workers; and without these again are sundry cooks, fresco-sellers, &c., who are frying savoury cakes and fish for their customers, particularly in the morning and late in the evening.

The arcades are about five hundred feet long, well paved with small stones, interlaid with the knuckle-bones of sheep, which produces a kind of mosaic pavement, and makes known the date of its being laid down as 1799. This place for hours every day is the great resort, and one has a full insight to every store, as they are all doors, and

consequently quite exposed, to their remotest corner. The second story is occupied as dwellings.

The palace of the viceroy occupies the north side of the plaza. The lower part of it is a row of small shops, principally tinkers and smallware-dealers. On the east side is the archbishop's palace and the cathedral.

The fountain in the centre of the plaza is a fine piece of work, and was erected, according to the inscription, in 1600, by Don Garcia Sarmiento Sotomayer, the viceroy and captain-general of the kingdom.

"El que bebe de la pila sequenda in Lima," is the usual saying.

"He that drinks of the fountain will not leave Lima."

The cathedral is a remarkable building, not only from its size, but its ornaments. Most of the decorations are in bad taste, and I should imagine its former riches in the metals and precious stones have contributed chiefly to its celebrity. Certainly those ornaments which are left cannot be much admired.

Its great altar, composed of silver, might as well be of lead, or pewter, for all the show it makes. In a chapel on one side of the building, there is a collection of portraits of the archbishops. They are good faces, well painted, and all are there but the one who, at the breaking out of the revolution, proved faithful to his sovereign and the Spanish cause. They all have had the honour, except him, to be interred in niches, in the crypt, under the great altar. Many of the coffins are open, exposing the dried-up remains of the saints, clothed in leather jackets and shoes, which the sacristan made no difficulty about disposing of for a trifle. Two skulls and a hand were obtained. There is some good carving about the choir of the cathedral.

The market of Lima is kept in an open square. It is a strange place to visit, and the scene that is witnessed there cannot fail to amuse the stranger. It is well supplied, and many purchasers frequent it. There are no stalls, and mats are used in their stead. The meat is laid on them in rows, and the vegetables heaped up in piles. The meat, as at Callao, is cut with the grain, and into small pieces, to suit the purchasers; and poultry is cut up in a similar manner. But what will most attract a stranger's notice, are the cooking establishments. These are in great request; stews, fries, and olla podridas, are in constant preparation by some brawny dame, who deals out, with much gravity and a business-like air, the small pieces to the hungry Indians who stand by waiting for their turn. The fried dishes seemed to claim their preference, if one could judge by the number in waiting. The expertness of the woman who officiated was truly wonderful, twisting and twirling the dough in her hand, placing it upon a stick, dipping it in the hot oil, and slipping it as soon as cooked dexterously into the dish for her customers. Then again was a frier of pancakes close by, equally expert. The variety of dishes cooking was surprising, and those who fried fish exhibited undoubted proofs of their freshness, by consigning them to the pan before they ceased to live.

I was surprised at the variety of fish, meats, vegetables, and fruits; the latter particularly. These were in season, and included oranges, cheri-

moyers, pomegranates, paltas, plantains, bananas, papaws, granadillas, apples, figs, and auanas.

The above are the usual articles crowded into the market, but were I to stop here, one-half would not be told. All sorts of goods, jewelry, cottons, woollens, laces, hardware, linen fabrics, handkerchiefs, shoes, slippers, hats, &c., are hawked about by pedlers with stentorian lungs, who, with the lottery-venders, with tickets, ink-horn, and pen, selling the tickets in the name of the Holy Virgin and all the saints, make an uproar that one can have little idea of, without mixing in or witnessing it.

The convent of San Francisco occupies six or seven acres of ground. In its days of prosperity it must have been a magnificent establishment. Its chapels are very rich in gilding, carved work, &c., and the cloisters are ornamented with beautiful fountains and flower-gardens. Part of it is now occupied by the soldiers as barracks, and their muskets are stacked on the altar of one of its chapels. It has long since been stripped of its riches and deserted, but it seems once to have possessed all that wealth, luxury, and taste could effect or suggest. The good Father Anculus, who showed the building, was shrewd and obliging. The gallery of paintings contains, it is said, many fine Murillos. The remains of its former splendour, even now, justifies what Father Fetuille asserted, that there was nothing of the kind to compare with it in Europe. There are but few friars here at present, but it is said to have formerly maintained five hundred, living in the greatest luxury and licentiousness. The most remarkable object in the church, was the shrine and image of a black Virgin Mary, with a white infant Saviour in her arms.

The public library is composed of rare and valuable books, both in French and Spanish, taken from the Jesuits' college and convents. They are in good order, and among them are many manuscripts which are beautifully illuminated. The librarian, a young priest, deserves our thanks for his attention and civility.

The public museum has been but lately commenced. It contains a collection of curious Peruvian antiquities, some native birds, and the portraits of all the viceroys, from Pizarro down. At the cabildos or city hall, are to be seen some of the archives of Lima, kept until recently in good order. Many signatures of the old viceroys and governors are curious; among others, that of Pizarro is shown. As few of them could write, they adopted the *rubrica*, made by placing the finger of the left hand and making the flourish on each side of it, the clerk filling in the name. This method has since been generally adopted among the South Americans, in signing official documents, being considered full as binding as if the name was written.

There are three classes of inhabitants, viz. whites, Indians, and negroes. The union of the two first produces the cholo; of the two last, the zambo; and of the first and last, the mulatto. The Spaniards, or whites, are a tall race, particularly the females. They have brown complexions, but occasionally a brilliant colour, black hair and eyes. Some of them are extremely beautiful. The cholos are shorter, but well made, and have particularly small feet and hands. All classes of people are addicted to the smoking of cigars, even in car-

riages and at the dinner-table. It does not seem to be considered by any one as unpleasant, and foreigners have adopted the custom.

There does not appear to exist any accurate account of the population of Peru; but it is generally believed to have decreased, particularly as regards the whites and negroes. The best information gives but little over a million inhabitants, viz. about one hundred and twenty-five thousand whites; natives and cholos, eight hundred thousand; with ninety thousand negroes and ranchos, of whom about thirty-five thousand are slaves. This does not vary much from the number given by the geographies forty years ago. The country appears, from all accounts, not only to have decreased in population, but to have diminished in wealth and productiveness. A much less proportion of the soil is now cultivated than formerly under the "children of the sun."

There are half a dozen newspapers published in Lima, two of which are issued daily. They are, like the Spanish, small sheets. They have a good deal of control over public opinion. Few or no advertisements are seen in them. These are deemed unnecessary in Lima, and all the amusements, such as the theatre, cock-fighting, &c., are placarded on the portals. A high price is asked for the newspapers.

Most of the buildings in Lima have suffered more or less from earthquakes. It was the season of earthquakes during our stay, and three were felt. Some of our gentlemen complained of a sickening sensation during the first. It did not, however, do much damage. The second took place on the 5th of June, and was sensibly felt; a third was experienced on the 10th of June, with a continued shaking of the walls and floors. The last was reported as having been more severe to the northward.

With the name of Peru the want of moisture is generally associated. The general impression is that it never rains there. This, however, is far from being strictly true, except in certain parts of it. Were it not, however, for irrigation by the mountain streams, a great portion of Peru would certainly become nearly a desert. Indeed, the upland is so now, not yielding any herbage whatever until the pasture region of the Cordilleras is reached. We are not to imagine, however, that the atmosphere is very clear, or that sunshine always prevails. It is extremely difficult to get a clear day. Father Feuillée has put upon record, more than a century ago, that the heavens were generally obscured. I can bear testimony to the truth of this remark, for although a glimpse of the sun was usually had some time during the day, yet it was

almost as difficult to get equal altitudes at Callao during our stay as it was at Terra del Fuego.

The dew (*almozo*) of Lima is never so great as to produce running water, yet it is more like rain than a Scotch mist.

The peculiarity of there being no rain, has been accounted for in several ways, but not to me satisfactorily. The prevailing cold and dry winds from the southward sweep over the western shores of the continent; having a great capacity for moisture, they absorb it as they advance to the northward, from every thing. On reaching the latitude of 12° S., they cease, and having become saturated, now rise to a sufficient height, where they are condensed by the cold strata, and again deposited on the mountains in almost constant rains. This will account for the aridity in the high Cordilleras of Chili, as well as for the existence of the Desert of Atacama, the want of rain on the coast of Upper Peru; and at the same time, for the moisture of the high Cordilleras of Peru, which will be shortly spoken of. It will be remembered that our parties on the Cordilleras of Chili found the aridity to increase on ascending, to the very edge of the perpetual snow, and all the plants were of a thorny character.

The records of Lima mention the falling of rain only four times in the eighteenth century, and the occurrence of thunder and lightning an equal number of times. But this applies to a small part of Peru only, namely, the country bordering the coast, some fifty or sixty miles in width around Lima. It will be seen that our party who visited the interior, when at the height of ten thousand feet, entered a region subject to rain, and on the crest of the mountains the soil was kept perfectly moist by the frequent snows and rain.

Fire is not used often, but from the continual dampness there is a cold and clammy feeling, that is exceedingly uncomfortable and prejudicial to health. Lima has certainly the reputation of being a healthy place—how obtained I know not—but it certainly does not deserve it. The interments have annually averaged over three thousand five hundred, in a population amounting by the best accounts to no more than forty-five thousand. Many of these deaths are those of strangers, and the climate has always been fatal to the Indians.

The Rimac derives its waters exclusively from the snows of the Cordilleras. It is a mountain torrent throughout its whole course. The quantity of water in it is small. The width at its mouth is about thirty feet, and one foot deep. It has not sufficient force to break a passage through the beach to the sea, and the water filters through the pebbly soil.

CHAPTER IX.

PERU (CONTINUED).

TRIP TO THE CORDILLERAS—PREPARATIONS FOR THE JOURNEY—PASSPORTS—DEPARTURE—EFFECT OF OFFICIAL PAPERS—FACE OF COUNTRY—RUINS OF INCA TOWNS—PONCHORUA—CABALLEROS—CONVOY OF SILVER—ACCOMMODATIONS—EARTHQUAKE—ROUTE UP THE VALLEY OF CAXAVILLO—FACE OF COUNTRY—ST. ROSA DE QUIVIVASO—OBRAJILLO—DIFFICULTIES IN PROCURING MULES—BEAUTY OF SITUATION—LLAMAS—RIOTERS—PLUNDERING OF INHABITANTS—CULNAI—LA VINDA—VEGETATION—MULETEERS ENCOUNTERED—CREST OF THE CORDILLERAS—CASA CANCHA—ITS ACCOMMODATIONS—COOKING-RANGE—SICKNESS OF PARTY—SNOW-STORM—ALPAMARCA—COMPANY OF PERUVIANS—THEIR ATTENTIONS—PROCESS OF AMALGAMATION OF ORE—VISIT TO THE MINE—FACE OF THE MOUNTAIN—ROAD—BAÑOS—BEAUTY OF VALLEY—VEGETATION—THREATENED ATTACK OF A CONDOR—PORTRAIT—INCIDENTS RELATING TO IT—DESCRIPTION OF BAÑOS—ITS HABITATIONS—STATE OF HORSES—RETURN TO CASA CANCHA—CHILIAN CONVOY FROM PASCO—PASCO—MINES—VEINS OF ORE—NUMBER OF MINES IN OPERATION—LAWS IN RELATION TO SILVER MINED—DUTIES—HILL OF RACO—NEW SPECULATIONS IN 1840—DIFFICULTIES IN PURCHASING MINES—POLITICAL STATE OF THE COUNTRY ADVERSE TO THIS BUSINESS—TEMPERATURE—BEAUTY OF SITUATION OF CASA CANCHA—THE PARTY RETURN—LINE OF PERPETUAL SNOW—AMMONITE—CHICRINE—TRAVELLING PARTIES—FRENCHMAN—HIS COMPLIMENTS AND FATE—CULNAI—CULTIVATION—HOSPITALITY—OBRAJILLO—ACCOMMODATIONS—WANT OF GALLANTRY—GUIDES—SETTLEMENT—BRIDAL PARTY—YASO—ROBBERY—YANGA—HOSTESS—ANGELITA—CABALLEROS—RETURN TO LIMA—BOTANICAL REVIEW—GEOLOGICAL CHARACTER OF THE COUNTRY—FLYING-FISH SENT TO PACHACAMAC—LANDING—TEMPLE—TOWN—TUMBS—THEIR CONTENTS—EMBARKATION—RETURN TO CALLAO—COMMERCE AND TRADE OF PERU.

On the arrival of the Relief at Callao, Messrs. Pickering, Rich, Agate, and Brackenridge, requested permission to make a jaunt to the Cordilleras of Peru, for the purpose of making botanical collections. I felt much gratified that this object had been effected, although I could not but regret that they were suffered to depart without the necessary instruments for obtaining the altitudes, which had been put on board the Relief at Orange Harbour, for that very purpose.

Mr. Rich spoke the Spanish language well, which afforded the party many facilities for overcoming the difficulties that were thrown in their way.

In Lima the journey was considered as a very serious undertaking, and likely to be attended with much danger, from the banditti who frequent the route they intended to pass over,—that to the mines of Pasco. Through the friendly assistance of Mr. Biggs, of the house of Messrs. Bartlett and Co., every thing was made easy. By his advice, they supplied themselves, not only with blankets and horse-furniture, but with all sorts of provisions, and particularly with bread, of which they took as much as they could carry, notwithstanding the country was described as well inhabited. As a preliminary step, it was necessary to provide themselves with passports, for which they lost no time in applying. After the delay of a day, the passports came in the form of a letter of protection and recommendation from Lafuente himself, to the local authorities throughout all Peru, couched in the most liberal terms, and treating the affair with as much importance as if it were a national one. It is a regulation that the names of all who receive passports shall be published in the official gazette; their intention, therefore, became known to all Lima. From the few who are gazetted, it would appear that but a small number travel into the interior, or else that the regulation is not very strictly complied with.

The injunction to render the party assistance in case of need was very strong, and among other things specified to be furnished, was *clothing*, which

was thought to look somewhat ominous in this country of banditti. In spite of the positive terms in which the passport was expressed, it was found of little effect in procuring them mules or horses; and it was not till after much trouble and disappointment on many sides, that horses were at last obtained from the post establishment.

On the 16th May they were ready to set out, and were accompanied for some miles by Mr. Biggs, whose friendly advice and assistance they had often, during the jaunt, reason to be thankful for. It saved them much inconvenience, and was the cause of their being provided with many little comforts, without which they would have suffered privation.

Their proposed route was up the valley of the Rio de Caxavillo, the river next to the northward of the Rimac. Leaving Lima, they passed through the suburbs of San Lazaro, at the gate of which, and for the only time during the journey, they were desired to show their passports. Some little difficulty arose, and an intention was expressed to unload the baggage-mule for examination. This, however, was soon removed by the reading of the passport, and the examination ended in many bows, and the repeated exclamation, "Go on, go on! God speed you!" Such was the talismanic effect of an official document at the period of our visit.

After leaving the city, their route lay along the margin of the extensive plain that borders on the sea, at the foot and over the low hills which skirt it. Many columns of dust and loose particles of sand were seen rising from the heated plain, stirred by the action of the wind, forming vortices of considerable diameter and elevation. Clouds of smoke, too, were visible in the distance, proceeding, according to the information of their guides, from the burning of the cane-brakes. The Peruvian willow, so much resembling the Lombardy poplar in its form, was much admired, and the contrast in the landscape between the barren clay-coloured hills and the bright green of the irrigated fields was very remarkable.

At the distance of three leagues from Lima, they passed through the ruins of an Inca town, situated (as they uniformly found them afterwards) just on the border of the irrigated valley. The walls of the town were very thick, built of mud and unburnt brick, at right angles, very much after the modern manner; the hills also were seen covered with the ruins of Indian buildings, some of them resembling fortifications.

They now turned up a beautiful valley, on the irrigated fields of which were seen herds of horned cattle, horses, and goats,—a proof that the irrigated land is not exclusively used for tillage.

At six leagues from Lima they reached Ponchorua, the first stopping-place; but the party concluded to go a league beyond it to Caballeros, where they passed the night. They arrived there in sufficient time to make a short excursion to the banks of the Rio de Caxavillo, which appeared a larger stream than the Rimac.

Around Caballeros are very extensive meadows and fields of clover. The posada was found occupied by the guard and muleteers who acted as a convoy of silver from Pasco. They gave up the only room in the house for our gentlemen, into which they were shown, and where a good supper was provided for them, while the guard took up their quarters in the yard. The metal, it was observed, was in large masses of piña, some of them heavy enough to be a load for a mule, and an inconvenient burden to run away with.

They passed the night on the tables and rude seats, under cover,—a luxury they had not yet learned to appreciate.

At midnight they felt the shock of an earthquake. A distant hollow sound was at first heard, which seemed to approach, increasing rapidly, and before they could spring to their feet, the house was rolled and shaken as if it had been on an agitated sea. Mr. Rich says that it was with difficulty he could hold himself on the table where he had been lying. The natives of the adjoining huts ran out into the road, uttering horrible shrieks, striking their breasts, and offering up prayers to the Holy Virgin to protect them. The shock continued severe for forty seconds, but lasted altogether about two minutes; it produced a slight nausea, like sea-sickness, which continued for some time afterwards, and a bewildering sensation, that rendered it difficult to collect their ideas to speak. The sound resembled that produced by throwing stones over precipices, so as to roll on hollow ground beneath. This earthquake was the most violent that had been experienced for some time, and was felt sensibly at Lima and through all Lower Peru. No material damage was done,—in consequence, according to the people of the country, of its *not getting to the surface*.

Early on the 17th the party set out up the dry mountain valley, the soil of which is composed of stones and loose powdery earth. This kind of ground continued for five leagues, with not a drop of water, nor was a plant or bird collected; nothing was seen growing but a few tillandsias. On this route they passed many crosses, marking the spots where there had been loss of life: a sight that was not calculated to excite pleasing thoughts, and bringing to mind not only the great number of murders that had taken place, but the daily occur-

rence of attacks upon small parties of travellers by the desperadoes of Peru.

Immediately on the confines of this dreary waste is Yanga, a deserted-looking place, but having some good gardens and orchards. At noon they reached Santa Rosa de Quivi, a small place, where they procured some good fruit. After travelling two leagues, they at dark reached Yaso, and stopped at the postmaster's house; he was not at home, but they were permitted to sleep in the porch or veranda. Nothing edible was to be found in the village, except a few potatoes, after supping on which, they disposed themselves on the clay and stones, with their arms ready for service,—a precaution necessary at times, even in the most frequented places in Peru.

During the day, they had been much annoyed by sand-flies and fleas; besides these, they had a few mosquitoes, but the latter are seldom felt in Peru.

The screaming of parrots during the night, had announced that some change had taken place in the vegetation. In the morning they found this to be the case. The land in the vicinity of the town was cultivated, and some good orchards and fields of clover were seen; the mountains, which had hitherto been gray with tillandsias, had now assumed a greenish tinge. Agaves made their appearance here, and a few miles beyond, the hills became entirely green: all showed that a different region had been entered. The inclined roofs of the huts proved that rains were experienced, and that it was found necessary by the inhabitants to protect themselves from them.

The valley had now become more contracted, and level ground was seldom seen; the mountains increased in elevation, the roads and scenery partaking of the character of Madeira. Cascades were seen springing from almost the very summits of the high peaks; cattle were grazing, and occasional cultivated patches were mingled with the pasture-grounds; the aid of irrigation was no longer necessary; and the Cordillera plants of the Flora Peruviana, with the vegetation made known by Humboldt and Bonpland, were recognised. At noon, after travelling six leagues, they reached Obrajillo, the rendezvous of the two celebrated Spanish botanists, Ruiz and Pavon, authors of the Flora Peruviana.

There are three towns, Obrajillo, Canta, and San Miguel, about a mile distant from each other, said to contain three or four thousand inhabitants. At Obrajillo, the general to whom they had letters of introduction was not at home; some difficulty in getting mules occurred in consequence, and it was not until much time and patience had been exhausted, that our gentlemen understood the real difficulty, which was, that the horses they had brought from the low country, were not considered capable of standing the cold and fatigue of the mountains, the owners at Lima having refused to allow their mules to cross the mountains. They were assisted, however, in procuring mules and guides by the general's son.

Obrajillo, the largest of the three towns, contains about one hundred cottages. It has a stone church, with two towers, apparently of some age, which fronts on the open square. The dwellings are of one story, without floors, and almost without furniture; yet it is said to be the residence of

many wealthy people. How true this may be, it was impossible from appearances to determine, for the high and low, the rich and the poor, all seem to live in the same style.

The difficulties that occurred in procuring mules for their journey, had delayed them so long, as to place it out of their power to proceed before the next day. The opportunity of visiting the environs was taken, and a large collection of plants was obtained, the annuals being found in the right season for making collections. The cascade which was seen as they approached was visited, and exhibited a picturesque and beautiful appearance, even when it was four miles distant.

At Obrajillo there are many pretty gardens and fields, under a good state of cultivation. The roadside itself looked like a flower-garden, and flowers of every hue were seen on either side, *calceolarias*, *lobelias*, &c.

Here was the first point where they had met the llama used as a beast of burden; the load which they carry is from seventy to ninety pounds.

On the 19th, at an early hour, some vagabonds, assuming the name of Chilians, went the rounds of the village, helping themselves to every thing they desired, to the utter dismay of the inhabitants, who made no resistance. The consequence was, that having neglected to supply themselves with bread the evening before, they lost the opportunity of doing it. This was a serious inconvenience, for Obrajillo supplies the upper country with bread, as Lima does the lower, and it is procured with difficulty, except at these two places. Potatoes were therefore taken as a substitute, though a very inconvenient one, from their great weight and bulk.

They were on the route by six o'clock, and an hour's ride brought them to a spot where the river formed a very picturesque rapid, soon after which they entered into a wild and romantic pass, between steep acclivities and precipices of immense height.

At ten o'clock they reached Culnai, a distance of five leagues; it contains about thirty cottages; its height is believed to be ten thousand feet above the sea, and here cultivation ceases, ending with the potato, *tropæolum*, *oxalis*, and *basella*. The second region of plants also terminates here; and now ensued the "Paramera," or pasture region of the Andes, avoided by the inhabitants of the lower districts on account of the cold. This third region gives growth to a set of plants which make a gradual transition from those of the second region to low alpine scraggy bushes, none of which exceed two feet in height. The Paramera is remarkable for a dense sward of coarse grass, and low herbaceous plants, principally of the order *compositæ*. The flowers of the latter it was remarked were particularly large in proportion to the plant. These form a rich pasturage for the flocks and herds, which are seen feeding in the valleys and along the sides of the hills.

No cultivation is attempted beyond Culnai, and but two species of Cacti were met with above this point.

They had hitherto for the most part followed a northerly direction, but now they diverged more to the north-east. The temperature was falling as they ascended, the air was clear and bracing, and the scenery as they advanced became more interesting, and even sublime. To its wild and pre-

cipitous features was now added the high snowy peak of La Viuda in the distance, and some few spots of snow were occasionally seen in places sheltered from the sun's rays. The mule-paths had become narrow, and when they met with mules, which was often the case, it became necessary to turn under the rocks, until the path was clear. On one occasion, one of the party allowed his mule to take the outside; the consequence was that a muleteer shoved mule and rider several feet over the bank. No injury was received, and the dilemma passed off with a good laugh at the fright.

The sagacity of the mules on these occasions is remarkable. They always endeavour to cling to the wall side, and will succeed in doing it if not prevented by the rider. Their caution is great when they apprehend danger in passing over steep places; the instant danger was anticipated, the nose and fore feet were used to ascertain its extent, which done, the animals cautiously proceeded, and reached the bottom with great care and ease both to the rider and themselves.

About three o'clock they had gained the fourth or alpine region, where they were met with sharp and cutting winds, accompanied with hail and snow, that proved very uncomfortable to their sunburnt faces: this was supposed to be at an elevation of about fifteen thousand feet. Our gentlemen now felt the effects of the elevation in headache, difficulty of breathing, and excessive lassitude. The crest of the Cordilleras is at this place a league in width, the surface very uneven, containing small lakes without outlets, sunk in deep hollows; beyond this the streams which form the extreme sources of the Amazon were running to the eastward. After travelling two leagues on a gentle descent, they arrived at Casa Cancha about dusk.

Casa Cancha consists of three huts, and is nothing more than a muleteers' rendezvous; the place was in charge of two women, who in expression, if not in form, might have been taken for witches. The accommodations, if they may be so called, were an apartment common to all the inmates, with no fastening to the door or windows, without a fire, and nothing but the hard ground to lie upon.

At night the thermometer frequently falls to the freezing-point, and the climate is like that of winter; there is not, however, a stick of wood nor any resinous *umbelliferae*, as on the Chilean Andes, to be had, and the cooking is done with turf when it can be obtained, but dry cowdung is most commonly used for this purpose. This is the only and the best establishment the place affords; even the first females in the country can procure no better accommodations, and will bear it for the night with contentment.

As a special mark of distinction, a smaller apartment was assigned to our gentlemen, in a hut adjoining that in which their supper was cooked, of which they witnessed the preparation. The cooking range was of peculiar construction, and might serve as a pattern for a modern *cuisine*. It occupied one corner of the apartment, and appeared to be convenient and well adapted to the wants of the inmates.

After a time the fore-quarter of mutton made its appearance in the hands of their landlady, scorched to a cinder. Being unprovided with a

knife, she began to tear it into small pieces with her fingers. Our gentlemen remonstrated, but nothing would stop her until nearly every morsel of it had passed through her dirty hands. This, added to her state of intoxication, caused some of them to lose their supper from sheer disgust, though all agreed that she carved or tore it into pieces in a most dexterous manner.

After supper they were informed by their guides, in much consternation, that a band of Chilean marauders were approaching; the whole establishment was in great uproar. The party, however, proved to be a convoy. The officer in charge was civil, and engaged freely in conversation on the pending contest between Chili and Peru.

During the night the party were very much troubled with headache and difficulty in breathing; they passed an uncomfortable night on the clay floor. The thermometer in the doorway stood in the morning at 33°.

Casa Cancha is in a valley surrounded by lofty mountains. Its height, upon the authority of a gentleman at Lima, is fourteen thousand five hundred feet above the level of the sea. Pasturage in its vicinity is good; sheep and cattle are abundant; bread and potatoes are brought over the mountains from Obrajillo: of these they have oftentimes but a scanty supply, which was the case at this period. The evening previous to their arrival a theft had taken place there,—a gentleman had had his fire-arms stolen; a great loss, when one takes into consideration the nature of the country, and the dangers to be encountered in travelling.

On the morning of the 20th, with one exception, they were all affected with vomiting, headache, and fever, and still suffering much from difficulty in breathing; this is usually felt on first visiting these elevated regions, and is said to be particularly so at night.

The morning proved so boisterous with frequent hail-showers, that they determined to remain the day, to rest their mules and recruit themselves. Their breakfast was more acceptable than the last night's supper; it consisted of olla-podrida and milk.

As the weather allowed them to botanize, they set out in two parties, but had not been occupied over two hours, before they were overtaken by a severe snow-storm, which entirely covered up all small plants, and made it difficult for them to scale the rocks.

On the 21st, they had determined to proceed to Baños, which from the description of their guides, who were ignorant however of the route beyond Casa Cancha, they had been led to believe was on the eastern slope of the mountain.

They started at an early hour, with the wild geese flying and feeding around them, determining to visit Alpamarca, which is distant from Casa Cancha about two leagues; but owing to their guides being unacquainted with the paths, they were led about among the mountains, and over extensive plains, covered with coarse herbage. A variety of beautiful flowers were found, and many domesticated llamas were seen feeding. At eleven o'clock they stumbled, as if by accident, on the place, consisting of a number of huts; one of these showed the welcome sign of bread for sale, viz., a basket stuck upon a long pole; and they were fortunate in procuring some small rolls.

Alpamarca proved to be in the vicinity of a silver-mine, and here they found a goodly company of Peruvian gentlemen, collected from various quarters, and among them the general to whom they had brought letters to Obrajillo. They were received with great kindness and attention; the company insisted upon their dismounting, and gave them the cheer they had prepared for themselves, which was readily partaken of. It was served in a large gourd-shell, and consisted of a Spanish hotch-potch, or olla, with carrots, pot-garlic, pepper, and small bits of mutton. It was observed, as the eatables were disappearing, that the Spanish dons now and then would partake of the tidbits by reaching over their shoulders from behind. This repast was well timed, for our party had been fasting sufficiently long to enable them to do ample justice to it.

The Peruvians sent for the superintendent of the mine, and in the mean time showed the process of extracting the silver, which was as follows: the ore is broken up until it resembles earth; it is then thrown into a large round vat, and mixed with mercury and water; six or eight mules are then turned in and driven round and round, until the amalgam is formed; it is then put into a vessel, and stirred with water until the earth unites with it, and the water being poured off, leaves the amalgam, whence the mercury is finally evaporated.

The ore appears to be taken almost entirely from the surface. It is poor, and the mines do not yield much profit. There are many old veins that have been extensively worked, but owing to their depth have been abandoned.

The superintendent arrived after a while; he proved to be an English miner (Mr. R. Bevan), who had been twenty years in the country. He was delighted to see our party, saying that an American and Englishman were all the same in Peru, and that he had not heard his own language spoken for two years. He informed them that the old Spaniards had worked the mines cheaper than any one has been able to do since. They were large landholders, and contrived to keep themselves in debt to their tenants; this they always paid in manufactured goods, very much in demand with the Indians who worked the mines, thus making a double profit on the wages. At the present time the mines are worked by Indians of a mixed blood, who have a language of their own. They are much addicted to the use of coca, (the leaf of the erythroxylon coco, which is mixed and masticated with quinoa,) and without a supply of this leaf they will not work.

Mr. Bevan took the party to the mine, which is some distance up the mountains. Much difficulty was experienced in breathing the rarefied atmosphere, and great fatigue in walking; so much so, that it was necessary to stop every few steps to rest; and what was surprising, Mr. Bevan and the Indians who accompanied him appeared to be more affected than any of the party. He assured them it was the same even with the Indians born on the spot, showing that neither time nor other circumstances can adapt a constitution to this elevated region. On reaching the mouth of the mine, they saw several emaciated and ghastly-looking Indians seated near the entrance; they descended a few yards into it, but found that time would not admit

of the delay necessary to pass down to the places where they were at work; and wishing to devote their attention to the interesting region of botany in which they then were, they gave up their purpose of descending.

On no part of their journey did they find so many remarkable plants as on this mountain.

Towards the middle of the afternoon they returned to the hut, when they determined to proceed to Baños. Previous to leaving Alparmarca, they had some difficulty with the guides, who were dissatisfied with their bargain; it therefore required some management to prevent them from deserting altogether, and caused our gentlemen some fear lest they might be compelled to return; but after much dispute, the guides consented to proceed, although it must be allowed that the bargain was far from being advantageous to them.

Along the road to Baños they passed some high ridges, with snow and ice coming at times down to the path; also lakes in deep ravines, somewhat resembling small craters, which, like all the rest they had seen, were tenanted by numerous water-fowl.

The crest of the Andes did not appear here quite so broad as it had been found to be four leagues to the southward, but its elevation was thought to be greater. The continuous ranges of snowy peaks in the direction of Pasco were very striking. The Indians have names for all the most remarkable ones, but the Spaniards embrace the whole, together with the principal one, under the name of La Vinda.

From the direction of the descent to the northward and westward, they began to suspect they were descending upon the western slope of the Cordilleras instead of the eastern; this proved to be the case, which was no small disappointment, as it was their original intention to reach the wooded district on the eastern slope, termed "Montanas." In this they were therefore disappointed. As they proceeded the country improved, the climate became milder, and the soil richer; on their way they crossed a small stream, which was said to be the source of the river Chancay.

At dark they reached Baños, which is computed to be upwards of five leagues from Casa Cancha. Baños is considered to be at about the same elevation as Culnai, but the descent is more rapid to the former. According to the custom of the country, they applied to the alcalde for accommodations, who is obliged, according to law, to furnish travellers with a house, if the town should possess none for the use of strangers, free of expense, and to provide them with a cook; the travellers buy their own provisions, and pay for the cooking, one real for each dish.

Baños is celebrated for its mineral hot-springs, from which it derives its name; they flow from the base of a high mountain.

The town consists of about thirty houses and a church, of which the inhabitants are very proud. It is a neat village, situated in a deep ravine, by the side of a tumbling stream, bounded on both sides by mountains three thousand feet high. The mountain sides appear so precipitous, that the remark was made by one of the party, "that he could not conceive why the cattle that were feeding on their sides did not fall off."

Along the margin of the stream, carnations, pinks, stock gillyflowers, and French marigolds

are naturalized; the pinks grow in immense numbers in every crack and crevice.

The cabbages here are woody and arborescent, like the cow or tree-cabbage, the trunk and branches being quite hard and covered with bark; they have at a distance some resemblance to the *Brugmansia suaveolens*.

The thermometer stood at 50°, and the weather, in comparison with the day before, was quite mild.

The soil in this valley is good, and cultivated in some places with care: no fruit was observed. The largest trees were a species of elder and a buddlea; *calceolaria*, *salvia*, and *heliotropium* abounded.

On the 22nd they determined to remain at Baños. At an early hour in the morning they found the village deserted, and it appeared on inquiry that all the inhabitants had gone abroad to tend their herds. For the purpose of taking as wide a range as possible in search of plants, our gentlemen separated, some going up, while others descended; they all met with great success in their botanical researches. Dr. Pickering attempted the ascent of one of the summits; by noon he had reached a high elevation, and looking up, he espied a huge condor soaring down the valley. He stopped to observe the majestic bird as it sailed slowly along. To his surprise it took a turn around him, then a second and a third, the last time drawing so near that he began to apprehend it meditated an attack. He describes himself as being in the worst possible condition for a fight, his strength being exhausted by climbing, and his right hand having been lamed for some days from a hurt. The nature of the ground, too, was any thing but favourable for defence; but there was nothing left but to prepare for a fight, and with this intent he took a seat and drew his knife. At the instant, as if intimidated by the sight of the weapon, the bird whirled off in a different direction. Dr. Pickering confessed, however humiliating the acknowledgment, that he was at the time very well satisfied with the condor's determination to let him alone.

Dr. Pickering was enabled to reach the ridge that bounded the valley, but there were many higher beyond. The view thence was magnificent, overlooking to the west eight distinct ridges between him and the sea, which was scarcely defined enough to be made out with any certainty. He descended by the same route again to the village. The alcalde discovering that one of the party (Mr. Agate) was an artist, became extremely anxious that he should make a sketch of his father-in-law, an old revolutionary soldier, who resided there. As the son-in-law had been so attentive, and offered them so many civilities, among others the loan of a silver dish, spoon, and fork, he could do no less than gratify these wishes. For this purpose the old man dressed himself in his uniform. The task of sitting was almost too much for him, and he was nearly overcome with the excitement and exertion. The old man was greatly delighted with the picture, as were all those about him, except the son-in-law, who expressed great dissatisfaction that it should be without legs, it being only a half-length, and offered a large price to have them put on; but time did not admit of it.

Mr. Agate's first effort was deemed so successful that his reputation was at once established at Baños, and shortly afterwards he was called upon

by the sacristan to engage him to paint the four Evangelists for the church. Price was no object, provided he could do it, and they would besides consider it as a great favour.

Some of the bystanders proposed to have the constable painted, and pointed to a strapping big negro.

The houses literally contained no furniture, and the silver lent to our party was believed to constitute the only valuables in the place. The only articles besides that were seen were some roughly-made wooden spoons, earthen dishes, and water-jugs, a few boards made into a rough table, with a stool or two, and a bedstead made of canes and plastered with clay. In no part of the United States, whether in the cabins of the far west, or in the poorest suburbs of our eastern cities, are persons to be seen living in such a miserable manner. The country-people of Peru, notwithstanding they are surrounded with every thing to make them comfortable, want the knowledge and industry to use the advantages nature has given them.

On the 23rd they left Baños on their return. Notwithstanding their horses had had some rest, their backs were in a shocking state, but the sores did not seem to be regarded much by the guides, who applied soap to them; they scolded and blamed the English saddles, which they called "gallapagos turtles."

The party had determined to make another visit to Alpanmarca, but the guides would not listen to it, giving as a reason that they should have their horses stolen if they went. While this discussion was going on, they met a person who informed them that the only persons now there were Indians. As their only inducement to return was the agreeable company they had left, they acceded to their guides' views, and taking another direction, arrived at Casa Cancha in the afternoon. At night some Chilian cavalry arrived, which caused great alarm among the occupants of the huts and the guides, for fear of losing their horses, a disaster which they said often occurred when such visitors came. The commander proved to be a gentlemanly person, and rendered our party much assistance. This party had left Pasco, the chief mining place of Lower Peru, in the morning, and represented it as a place of considerable trade, containing many foreign residents, including English, American, French, and German. He stated that the *Quichua* language was spoken there, and that the Spanish was not commonly understood.

The town of Pasco is at an elevation of thirteen thousand feet, and situated in the plain of San Juan, at the head of two ravines or gullies, one called Rumiallana, leading to the northward, and the other Huanuco, to the eastward, where the two great veins of Colquijirca and Pariajirca unite. These are supposed to extend some seventy miles in length, and the town of Pasco is situated at their junction. The part of the ground that has been broken up, and in which ores have been found, is about half a mile in length in a north and south direction, and about one-fourth of a mile east and west. Within the whole of this extent ores have been mined of greater or less value, and the mines formerly worked and now deserted are said to amount to upwards of a thousand.

The town of Pasco is surrounded on three sides: north-east and south by hills of blue limestone; on

the west the hills are of sandstone, and on the south-west of a blue slate. All the ores of the Cerro are ferruginous, and the silver nearest to the surface is contained in an ochreous iron-stone. In particular spots the silver is found mixed with lead and copper, and at variable depths in different localities the ores rest on a bed of solid iron pyrites, which in some mines yield silver and in others not.

The plain of San Juan on the north is divided into many mining districts, to which names are given to distinguish them more readily. The southernmost of these is called Zauricocha, and contains several mines, from which great wealth has been produced since the revolution. This is the region from which all the richest ores have been produced, and it has been always looked upon as the most important district in the Cerro. It is believed that further south, between this point and the hill of Uliachim, some good ores exist; but no attempt has yet been made to mine there.

In the district of Santa Rosa, lying west of Zauricocha, the greatest quantity of ore has been raised: it has been worked down to the level of the adit; and in several mines, where good ore has been discovered, they have descended to a lower level, drainage having been effected by hand-pumping.

On the east of the Zauricocha is the district called Aranillapata, in which few mines are now worked; the ore which is produced, although abundant in particular spots, is not rich.

Immediately within the town there are some few mines that are good, but there has never been any extensive work carried on. It is believed that profitable ore yet remains to be discovered.

Cayac, another district lying north of Zauricocha, is worked to some profit; the upper adit from the north-west reaches it, and several mines in it have been yielding good returns.

To the north of Cayac are the Chucarillo and Zauracancha districts, the working of the mines in which had been impeded by water accumulated since the breaking out of the revolutionary war. The upper adit, leading from the gully of Rumiallana, is carried above them, and they consequently derive no benefit from it.

To the north of these last two districts lies the plain of San Juan; there are a few small veins running through some parts of it, but no important discovery has yet been made, although many mines have been opened and carried down to depths of from one hundred and twenty to one hundred and fifty feet. The lower adit, from the gully of Rumiallana, is to run through it, and may open to the proprietors some discoveries to recompense them for their labours.

The whole number of mines considered rich in the different districts, may be enumerated as follows:

In Zauricocha	12 to 14.
Santa Rosa	20 to 25.
Cayac	10 to 12.
Chucarillo	5 to 6.
Zauracancha	10 to 12.

Each of these mines comprises a space of one hundred and eighty feet long by ninety feet wide.

The silver ores are estimated by a measure called a box of ore, which contains twenty-five mule-loads of ten arrobas, or twenty-five pounds each. Each box varies in value from six Spanish

mares to three thousand; the former being the lowest which, under the most favourable circumstances, will pay the cost of working. The poorest is of course the most abundant.

The miner who can raise ores in considerable quantities, which will give ten to twelve marcs per box, does well.

The produce of the mines since the close of the revolutionary war, has amounted to the following, viz.:

In	bars,	weighing	MARCS.	OZ.
1825,	228	56,971	6	
1826,	818	163,852		
1827,	1068	221,707	7	
1828,	922	201,338		
1829,	359	82,031		
1830,	457	96,265		
1831,	635	135,139	3	
1832,	994	219,380	5	
1833,	1133	256,333	2	
1834,	1142	267,363	4	
1835,	1148	276,813	2	
1836,	991	244,404	1	
1837,	1172	234,785	3	
1838,	1172	248,022	6	
1839,	1210	279,260	3	

To this may be added one-fifth for silver that has not paid duties.

The first adit of importance driven into the mines, was that of San Judas, which passed the wall of the vein of Zauricocha, in the year 1794. By means of this adit, very rich ores were raised, especially from the king's mine. In the year 1808, the present deep adit, from which so much was expected, was begun; for covering the expenses of constructing it, the body of miners imposed a duty of one real per marc on all silver melted in the government assay-office. This adit reached in 1830 the south-west edge of the metalliferous ground of Santa Rosa, up to which time the whole of its course had been in a hard rock. An auxiliary adit was then commenced, fifty-four feet above the level of the main one, and both of these works have been carried on until the present time. The ground above being better adapted for *driving in*, the upper adit is in advance of the lower one thousand five hundred feet, and has arrived at the district of Cayac. The lower adit has reached the mines situated upon the vein of Zauricocha, without having cut a single vein or deposit of ore in its transit. There are several rich mines a little in advance of this adit, some of which have been hitherto drained by hand-pumps, and which must be shortly very much benefited by it; for, although they extend below the level of the adit, yet they will have some fifty feet of pump-lift less. It will excite some wonder that steam is not now employed in the draining of such valuable mines. It has, however, been tried; a few years previous to the revolution, four steam-engines, of thirty-horse power each, were brought out from England, and three of them put up in the districts of Santa Rosa, Cayac, and Zauracancha. That of Zauricocha was not set up, but the other three were worked with some success.

A level was driven from the engine-shaft of Santa Rosa into the mines of Zauricocha, and rich ores were raised. The engine of Cayac did little more than assist that of Zauricocha, which, on account of the greater quantity of water, was barely able to do the work required of it. The expense incurred by the house of Abodia in this

undertaking was upwards of six hundred thousand dollars, and at the moment when they had begun to receive a good return for their capital, the revolution broke out, and the troubles incident to it put a stop to their work, and left them with that amount of loss. Subsequently, at the close of the war, the engine of Santa Rosa was again put in operation; and in parts of the years 1826 and 1827, a considerable quantity of silver was produced by means of the drainage effected by it.

Some abortive attempts were made to use the engine of Zauricocha, from 1829 to 1833; but since the latter period they have all been abandoned, as unserviceable.

The establishments for grinding and amalgamating the ores are situated at from one mile to three leagues from the mines: those nearest the town are deficient in water for several months in the year. The construction of all these mills is rude, and much power is lost. A mill will grind two hundred boxes of the hardest ore, if it have a constant stream of water. The amalgamation of the ore with mercury is effected by its being trodden by horses in circular enclosures, containing from five to ten boxes. The consumption of mercury, including mechanical and chemical loss, is about one pound for each marc of silver produced.

No attempts have yet been made at roasting any of the ores.

Coal-mines are met with in various parts of the country, at the distance of from two to seven leagues; the price is one real for an arroba, but might be much reduced if the business were properly attended to.

Various plans have been formed at Lima, and in England, to purchase and work these mines, but with what success is very uncertain; the attempts have generally been supposed to have resulted in a loss. Speculation is always rife in search of these valuable ores, and prospects of great gain are invariably held out to those who engage in them; but there is much difficulty in getting the business into successful operation. The great error committed by all the English companies established in 1825, for working mines in Spanish America, was in saddling themselves with great numbers of people, engaged at high salaries, and workmen at extravagant wages; the expenses attending this force swallowed up much of the funds before any work was begun. These included not only inspectors and mining-captains, but artisans, all of whom were sent from England. From a total change of life and circumstances, the mining-captains and artisans almost invariably turned out in a short time drunkards, and became good for nothing. In some cases miners were brought out, and these turned out still more worthless than either of the two former classes. They, indeed, did more work than the Indians, but their wages were higher, and the expenses for their importation in addition, made them cost much more.

According to the laws of Peru, the silver produced in this department must be sent to the government assay-office, to be melted into bars, and thence to the mint at Lima to be coined. The usual price of silver as it comes from the mine, is from seven dollars six reals, to seven dollars seven reals per marc. If remitted to Lima on account of the miner, it yields him about eight dollars one real per marc.

The duties it pays are six dollars per bar of two hundred and ten marcs to the assay-master, one real per marc for the public works of the Cerro, and one real per marc to government.

The mint price is eight dollars two maravedis per marc of eleven pennyweights fine.

Within three leagues of Pasco, on an extensive plain, there stands an isolated hill of porphyry, called Raco. From this hill are cut the stones used in grinding the ores, which are from two and a half to three varas in diameter, and from eighteen to twenty-four inches in thickness. The cost for delivering them at the foot of the hill is ten dollars for every quarter of a vara in their diameter, and the expense of drawing them to the mills varies from seventy to two hundred dollars, according to the distance*.

In 1840 several new attempts were about to be made in mining speculations.

The great difficulty to secure success seems to be in providing for the proper drainage, which the present adit will not accomplish alone, and great advantages might be derived from steam-power, properly employed, to free the mines of water. The owners of the mines are always desirous of inserting in the contracts, that they shall not have any water to raise, as this is the most expensive part of the process: the ore is very rapidly mined, after the water is drained off. The remuneration given to the proprietors of the steam-engines, is one-fifth of the ore raised; this was the sum paid to the old company, and the same was stipulated to be paid to the parties who undertook the same work in 1829.

Mines are to be bought at all times, on reasonable terms; for the miners often desire to retire from business, or wish to sell for the sake of profit, or are not able to carry them on from want of capital. There is, however, one difficulty a purchaser has to contend with, for the mines are almost always held in small shares among a number of relatives, many of whom refuse to sell their small interest. This makes the mines less desirable property, as difficulties almost invariably occur with these small proprietors.

No miner, who has worked with reasonable prudence, steadiness, and a sufficient capital, has failed to do well since the year 1833. The produce of the mines of the Cerro from that time, has not varied much from one year to another, as will be seen by the table heretofore given. The undertakings which have been carried on upon an extensive scale, are those which have prospered most. There were many difficulties that the first mining companies had to encounter, that others need not again apprehend; the local interests are better understood, and would be more respected; a better knowledge of the people prevails, and of the modes of mining; and the people themselves have lost some of their prejudices against foreigners. Persons may now be obtained to assist in the direction, as well as to afford advice to the agents who may be entrusted with the affairs of the company, so that the prospects of success in the operations are decidedly more favourable than they were fifteen years ago. But although the actual operation of

mining may be more advantageous, yet the country in its political and commercial character has very much deteriorated, and it is to be apprehended that but little capital will be invested in it until there is a great change in its rulers as well as in its people, and until government, the laws, and good order, become as well established as they are in Chili. All the friends of Peru seem, however, to be well satisfied, from appearances, that the day is not far distant when she will see the restoration of permanent tranquillity.

To return, after this digression, to our party: they had much agreeable conversation with the Chilean officers, and passed a pleasant evening. As I have before spoken of the accommodations, it is needless to say that they were not improved.

On the morning of the 24th the thermometer stood at 36° in the hut, and on the rivulet there was ice one-fourth of an inch thick. Mr. Brackenridge gathered seeds here of a curious species of cactus, which grows plentifully all over the mountains in dense tufts; from the quantities of down or fine hair upon it, it has the appearance at a distance of a white sheep, so much so that a group of them was sometimes mistaken for a flock.

Although Casa Cancha was a wretched hovel, and had every thing in it to disgust, yet the situation was one of great beauty. In the stream that flowed near it were fish of from six to eight inches in length, but none of these were taken, as the party was not provided with fishing-tackle.

When the time came for their departure, they were glad to bid adieu to the place, and to begin their ascent to the top of the ridge. They rode two leagues to the source of the stream, which is near the summit of the ridge. At a short distance from their path was the line of perpetual snow. They found the ground hard frozen as the snow was approached, and almost bare of vegetation, only a few stunted spears of grass occurring here and there; even this appeared to be wanting in the bare spots above the snow line. The snow was but a thin covering, its surface was hardened, and its lower margin formed a perfectly unbroken horizontal line along the face of the mountain. This was not apparently the case on the other ridges, for the snow lay there in hollows, and sometimes descended, as before remarked, below the path.

In the alpine lakes was a species of myriophyllum, the same as was met with at Culnai, three thousand feet below. Dr. Pickering found an ammonite here.

They descended rapidly on the western declivity; the scenery was beautiful, and they had enough employment in collecting specimens. Two large parties were met on the route, the one of loaded mules, the other of several genteel travellers, among whom were females, accompanied by several servants well armed. In the afternoon they reached a solitary hut, at a place called Chierine, situated at the foot of La Vinda, and kept by an old woman with one eye; she proved very much the reverse of their hostess at Casa Cancha, being very cleanly; here they passed the night comfortably.

A Frenchman, who was now passing for a native, and was on his way to Pasco with his servant, joined them at Chierine. Being invited to partake of supper, he accepted, and did ample justice to the meal; but when he had finished, contrary to the usual politeness of his countrymen, he told

* Most of the above facts are derived from a person who had long resided on the spot, and been engaged in various mining operations.

them he had never eaten a worse meal in his life.

After this remark, a belief was entertained that his saddle-bags contained edibles, and he was accordingly plied with questions until he confessed he had a loaf of bread : this proved quite acceptable, and a triumph over their fellow-lodger, who promised them a further treat in the morning upon some fine chocolate.

On the morning of the 25th the Frenchman departed early, and forgot all about his fine chocolate. They regretted to hear, shortly after their arrival at Lima, that he had been robbed and murdered on his return.

Our party set out early, and after an hour's ride reached Cuznai, where the villagers were busy gathering in their potatoes. There were also several patches of *oxalis cunata*, *tropeolum tuberosum*, and a species of *basella*. The two former when cooked are well-tasted, and all of them are much esteemed by the natives. These patches are enclosed by low stone dikes ; the plants, as they advance, are earthed up, as we do potatoes, in the early part of the season ; irrigation is necessary, as the soil is light and open, and consists chiefly of decayed rock and vegetable mould. Here some very interesting seeds and roots of a species of *altromeria* were gathered.

Cuznai and Baños are about on the same level, ten thousand feet above the sea, and are the highest points of cultivation ; they are both distant from the crest, by the route of the water-course, about nine miles.

Dr. Pickering having preceded the party on foot, reached Cuznai after nine o'clock, when he entered a store and was received with the utmost cordiality ; a meal was at once prepared for him, consisting of eggs and potatoes, called *chupe* in the country, which was kindly tendered ; the landlord was very inquisitive, and examined his budget, calling the attention of the by-standers to it ; his charge was reasonable, and he gave the doctor a hearty salutation at parting, with the "*Adios per Dios.*"

At dark the party was reunited at Obrajillo. Those who arrived first witnessed the slaughtering of a bullock in the square, on which occasion great numbers of condors and buzzards were collected in the air above. The latter bird is seldom seen higher up than Yaso. They stopped at the posada, which they found occupied by the company of Chilean troops whom they had met at Casa Cancha, and in consequence they were obliged to take up with a filthy hut.

At Obrajillo good crops of Indian corn, rye, and beans are raised ; but none of these grow at a greater altitude.

A singular and rather amusing custom was witnessed in the morning, which does not speak much for the gallantry of the male population. A town officer was seen strutting with a spear about the public square, calling all the women out to come and sweep it. They soon made their appearance, and were not long in creating a prodigious dust. They swept the dirt up into small heaps ; then taking their coarse shawls from their shoulders, they spread them upon the ground, and put the dirt they had collected into them, to be carried away.

The guides now demanded a settlement, but re-

quested their money might be kept for them until the party reached Lima, as they certainly would be robbed if they took it themselves. This incident proves how little security there is in this country for persons of any class having any thing valuable about them.

The preparations that had been made in the town were for a festival, and the guides were disinclined to start for Lima. A little bribery, however, and reminding them that one of the greatest feasts in the Catholic Church, that of Corpus Christi, was near at hand, induced them to go forward.

On their way from Obrajillo, which they left at an early hour, they met a bridal party on horseback. The bridegroom's hat and person were decorated with carnations and pinks ; the bride and bridesmaid carried the same flowers, which they presented to our gentlemen in passing. After a hard day's ride they reached Taso, and took up their quarters in the porch of the post-house ; the landlord and postmaster's absence was now accounted for, by saying that he had gone to church, but would soon be back ; he of course did not come, nor was he expected by our gentlemen. They, in consequence, fared badly, for they had nothing to eat. They found here a gentleman who had been robbed the day before by three persons in masks ; they had treated him with great politeness, only proposing exchanges to his disadvantage ; he had nothing else to complain of ; they took his purse, watch, spurs, and a drink of his brandy. Much to their surprise, the guides, who had been so scrupulous about their money, showed no signs of alarm. A new difficulty arose with them : they had been informed that a conscription was going on, and they were afraid to proceed, lest they should lose their liberty ; but the assurance, that they would be protected while with the party, satisfied them.

The frequency of murder, highway robbery, and a constant resort to the *cuchillo*, has not been exaggerated in the accounts of Lower Peru.

On the morning of the 27th they again set out, having prepared themselves to encounter any attack. The guides, knowing well the dangers that were to be apprehended, showed much solicitude about keeping the company together.

They reached Yanga without accident, and finding the posada occupied by a party of soldiers, and a recruiting officer, they were directed to a house with a porch, but they found it shut up. They, therefore, being assured that the owner would soon return, deposited the saddles, &c. in the porch. Soon after, a woman appeared, and on being informed of their situation, and that they had fasted for two days, she set about providing for their supper, apparently from Christian motives, for during the process she crossed herself several times. She proved to be the owner of the estate, was somewhat advanced in life, managed her own affairs, and was seemingly well adapted to encounter the roughness of the times. The heiress, a little girl, (Angelita by name,) came galloping on a horse, driving the cattle before her, with the air of a veteran, having command over both the animal she rode and those she drove ; they were not much struck with her beauty, for her well-plastered face, and wide-spreading and matted hair, gave her the appearance of an elf ; but she was a specimen of Peruvian nobility.

Their supper was good, and they were permitted to lie on the clay floor in the house.

They paid the usual price for the accommodations. In the morning, before their departure, they purchased fifty oranges for twelve and a half cents (a real), it being stipulated, however, that they should be gathered by themselves. These served to refresh them while passing over the barren track (described in their ascent) of four leagues. They were overtaken by their Chilean friends, and the troop, when their minds were relieved of the apprehensions of robberies.

Caballeros was reached at an early hour, and here they intended to stop on account of their horses; but their Chilean friends persuaded them to pursue their journey to Lima, promising to render them assistance in case they should need it. At Caballeros they witnessed a fight between a turkey and a game-cock; strife, indeed, appears to be a constant amusement with the Peruvians, and scenes of this kind alone seem to interest the public. After a long day's journey of twelve leagues, they reached Lima at eight o'clock, very much fatigued, and happy to return to the comforts of civilized life.

The only novelty they met with during the day's ride was a Guacho on horseback, carrying a pine board before him,—a proof of the scarcity of such articles in Peru, and the value that is set upon them.

This journey, although attended with much fatigue and some disappointment, from not having accomplished their object entirely, that of reaching the wooded district of the eastern slope of the Andes, yet was very productive of results in the botanical department.

The great difference of elevation, and the variation in climate consequent thereon, would lead one to expect a greater variety in the vegetation than was actually found. Forests were no where met with, nor were any of the palm tribe seen; very few of the many tropical plants were perceived even on the coast. The smaller shrubs were seldom found, except in the lower region, where their limit is circumscribed to the well-watered district. Thickets are very rare, and in the higher regions appear to be altogether wanting. The vegetation of Peru, on the whole, is characterized by an air of tameness, indicating but a slight change of season, and has been classed into four distinct botanical regions, which are easily distinguished.

The geological region passed over was also one of much interest, and from the observations of the gentlemen, the following information has been derived.

The geological structure, as far as their observations went, corresponds to that of North Chili, with the exception of a narrow belt of sedimentary rocks along the sea-coast, west of the granitic range, which is wanting in that country. This belt includes the island of San Lorenzo and others, as well as the coast itself, to the extent of from seven to ten miles from the sea-beach. These sedimentary rocks are argillaceous, distinctly stratified, and more or less slaty, the layers being in many places discoloured by the red oxide of iron. In other places they appeared of a black colour, as if in the vicinity of coal-beds, of which the existence was spoken of, but we did not discover any unequivocal traces of this substance. Some conspicuous

examples of faults were noticed by Mr. Dana along the coast of San Lorenzo. Many minerals were also found by this gentleman; among them gypsum was of frequent occurrence, as well as some fossils: for fuller information reference is made to the Geological Report.

The hills and mountains to the eastward, joining the above sedimentary rocks, are exclusively of granite, which extends in width to the distance of forty-five geographical miles beyond Yaso. In places it has very much the appearance of a stratified rock; it is much broken, and variable in its character, so as to render it somewhat deceptive. Dr. Pickering observes, that this peculiar character or appearance is owing to the slow process of the decomposition of the rock in this dry climate, and which would, in other places, subject to the ordinary fluctuations of seasons, be covered with several feet of earth. The same reasons will account for the duration of the Inca villages that cover many of the hills, and which a copious shower would entirely wash away. The granite on its eastern side was coarse-grained, presenting more of the ordinary appearance of that rock.

Immediately eastward of the granite district commence the trap rocks, consisting for the most part of porphyry. Dr. Pickering traced the line of junction for some miles, the hills on one side being of granite, on the other porphyry. The eastern limit of the trap region is supposed to be distant some twenty miles from the western. The porphyry resembles the Swedish, and that in the vicinity of Boston. Many porphyry pebbles, supposed to be of this formation, were found on the beach at Callao, having, it is to be presumed, been carried there by the action of the water-courses.

Next comes the plateau of the Cordilleras, which is formed of sedimentary rocks; this includes the silver-mines, and the highest peaks, and is apparently of the same age as the coast. Much of the rock is argillaceous. At Baños an argillaceous limestone was used for burning, and quantities of gypsum, used for manure, was brought from the vicinity of Casa Cancha, some twenty miles to the north. Conglomerates prevailed over a great portion of the crest the party traversed. The included pebbles were observed to be of regular shape, smooth and polished as if sea-washed. All the party remarked the smoothness of the pebbles in the torrents of the Cordilleras, which had a strong resemblance to those on the sea-beach. From the information relative to the mines in the Cerro de Pasco, it will have been perceived that blue limestone, slate, and sandstone exist in that vicinity; and at the silver-mines at Alpamarca a compact bluish rock was observed, probably the limestone; it was not, however, ascertained whether it was argillaceous or a pure limestone. Dr. Pickering remarks, that it contained numerous hard seams of opaque calcareous spar, with somewhat the lustre of "satin spar." Sandstone with small pebbles was not uncommon.

The bare spots of the higher peaks did not present the variety of colour of the Chilean Andes, but had a uniform dark slaty hue. Many incrustations were seen forming on the rocks and plants; this was found to be gypsum.

Previous to our departure, I felt desirous of having an excursion made to the ruins of Pachacamac; and having heard that the landing was

easy and good, on the inside of the island, I sent the tender Flying-Fish thither, with Dr. Pickering and Lieutenant Underwood.

Pachacamac is one of the most interesting spots on this part of the coast, although it is said it will not compare with many others in various parts of the country, especially at Cusco.

They left Callao on the afternoon of the 28th of June, and were at anchor about midnight abreast of the place. At daylight the surf was found so heavy as to render it dangerous to land in the whale-boat. By the perseverance of the officers, a raft was formed of the India-rubber mattresses and oars; two balsas were also provided. Lieutenant Underwood made the first attempt, and paddled himself into the rollers, the first one of which threw him and the balsas end over end. Shortly after, the raft was seen bottom up, the oar broken, and the fragments sticking up in various directions; but he was missing. He soon, however, made his appearance at some distance, and just as he reached the raft, a second sea broke over him, and he again disappeared, apparently much exhausted. When the third roller broke over him, he was considered for a few moments as lost; and it was no small relief to see him crawling from the water up on the beach, a short time afterwards. The raft was now pulled back to the tender by the line. In consequence of the ill success of this experiment, it was determined to make a trial in the whale-boat, which succeeded without accident. Dr. Pickering and Lieutenant Underwood now proceeded to the temple. At the base of the hills, they found a few cabins of Indians, who stated that they had not chosen the proper place for landing.

The temple of Pachacamac, or castle, as it is called by the Indians, is on the summit of a hill, with three terraces; the view of it from the north is somewhat like that of the pyramid of Cholula, given by Humboldt, except that the flanks were perpendicular.

The whole height of the hill is two hundred and fifty feet, that of the mason-work, eighty; the form is rectangular, the base being five hundred by four hundred feet. At the south-eastern extremity, the three distinct terraces are not so perceptible, and the declivity is more gentle. The walls, where great strength was required to support the earth, were built of unhewn square blocks of rock; these were cased with sun-dried brick (adobes), which were covered with a coating of clay or plaster, and stained or painted of a reddish colour.

A range of square brick pilasters projected from the uppermost wall, facing the sea, evidently belonging originally to the interior of a large apartment. These pilasters gave it the aspect of an Egyptian structure. In no other Peruvian antiquities have pilasters been seen by us. On one of the northern terraces were also remains of apartments; here the brick appeared more friable, owing to a greater proportion of sand; where they retained their shape, their dimensions were nine inches in width by six inches deep, varying in height from nine inches to two feet; and they were laid so as to break joint, though not always in a workmanlike manner.

The remains of the town occupy the same undulating ground, of less elevation, a quarter of a mile to the northward. This also forms a rectangle, one-fifth by one-third of a mile in size; through the

middle runs lengthwise a straight street, twenty feet in width. The walls of some of the ruins are thirty feet high, and cross each other at right angles. The buildings were apparently connected together, except where the streets intervened. The larger areas were again divided by thinner partitions, and one of them was observed to contain four rectangular pits, the plastering of which appeared quite fresh.

No traces of doors or windows towards the streets could be discovered, nor indeed any where else. The walls were exclusively of sun-dried brick, and their direction, north-east and south-west, the same as those of the temple, which fronted the sea.

Some graves were observed to the southward of the temple, but the principal burying-ground was between the temple and town. Some of the graves were rectangular pits, lined with a dry wall of stone, and covered with layers of reeds and canes, on which the earth was filled in to the depth of a foot or more, so as to be even with the surface. The skulls brought from this place were of various characters; the majority of them presented the vertical elevation, or raised occiput, the usual characteristic of the ancient Peruvians, while others had the forehead and top of the head depressed. Eight of these were obtained, and are now deposited at Washington. The bodies were found enveloped in cloth of various qualities, and a variety in its colours still existed.

Various utensils and other articles were found, which seemed to denote the occupation of the individual: wooden needles and weaving utensils; netting made in the usual style; a sling; cordage of different kinds; a sort of coarse basket; fragments of pottery, and plated stirrups. They also found various vegetable substances: husks of Indian corn, with ears of two varieties, one with the grain slightly pointed, the other the short and black variety, which is still very commonly cultivated; cotton seeds; small bunches of wool; gourd-shells, with a square hole cut out, precisely as is done at present. These furnished evidence of the style of the articles manufactured before the arrival of the Spaniards, and of the cultivation of the vegetable products; when to these we add the native tuberous roots (among them the potatoe) cultivated in the mountains, and the animals found domesticated, viz. the llama, dog, and Guinea-pig, and the knowledge of at least one metal, we may judge what has since been acquired.

The embarkation of the party was attended with risk, but they all got on board the Flying-Fish without accident, and in a few hours they again reached the anchorage at Callao.

The results of my inquiries into the commerce and trade of Peru, are by no means satisfactory. The vacillating policy pursued towards the trade has been most extraordinary; and some of those engaged in commercial pursuits have frequently been enabled, through the necessities of the government, to reap many advantages. Much illicit trade was carried on, even before the revolution, under the Spanish rule. The restriction laid by its authority on commerce, kept the prices of imports high, whilst the low value of exports, left to the arbitrary demand of monopolists, prevented or diminished the means of these countries to pay for what they wanted from abroad.

From this state of things resulted the limited trade and enormous profits to a few individuals, under the colonial system. As soon as the ports were opened, an expansion took place, and the trade was entirely overdone. The markets became glutted with all kinds of foreign fabrics, and many ruinous voyages were made from ignorance of the wants of the people, and their means of payment.

For the last ten years the trade has been better understood. The demand and the means of payment have been more accurately ascertained, and a healthy and increasing commerce has been carried on, as far as the state of the country and the fluctuations, which are inseparable from a distant traffic, would permit. The commerce of Peru will not bear a comparison with that of Chili, and while the former has been diminishing, the latter has been rapidly increasing. A portion of the supplies which were formerly sent to Peru direct, are now obtained in Chili, and sent to their destination in coasting vessels. This change has been brought about by the unwise policy pursued by the various Peruvian rulers, in imposing heavy transit duties. This is also in part to be attributed to the advantageous situation of Valparaiso, where purchasers are always to be found for articles for the leeward coast. There is little doubt in the minds of those who are most competent to judge, that Valparaiso must become the principal mart of foreign commerce on the west coast of America.

The foreign trade of Peru is principally carried on by the English, Americans, and French. Of late years, a good many German and Spanish vessels also have been sent thither; and occasionally some of the Mediterranean flags are seen on the coast.

The annual imports into Peru are combined so much with those of Chili, that it was deemed proper to include them under the one head; those of Peru amount to about two-fifths of the whole. Of these imports, part go to Guayaquil; the Intermedios, or South Peru and Bolivia, take about one million from Chili and Lima. The returns made from Peru are as follows:—

	DOLLARS.
In dollars and bullion	4,500,000
Bark, hides, wool, cotton, &c.	500,000
	<hr/> 5,000,000

It will be perceived, that both in Peru and Chili, the imports and exports are nearly the same in amount; and the question naturally arises, whence the profits on the trade? It is readily answered that, as has been already said, large quantities of goods are annually sold in Chili and Peru for Central America, the proceeds of which are shipped thence direct to Europe and the United States, and do not appear in the above note of exports.

These countries offer a large market for our domestic cottons; and if the prices can be maintained, the United States will supply the most of the coarser kinds used there. I have it from the best authority, that the consumption of these goods is now double what it was five years ago, and it is still increasing.

The article of flour, however, has greatly fallen off; previous to 1830, there were nearly thirty thousand barrels exported to Peru from the United States, in the last three years, only six thousand, and in 1841, but one thousand, in consequence of Peru being abundantly supplied from Chili.

CHAPTER X.

PAUMOTU GROUP.

STORE-SHIP RELIEF ORDERED HOME—DEPARTURE—PERUVIAN BRIG—SMALL-POX—GENERAL ORDER—PROPOSED ROUTE—CURRENTS—EXPERIMENTS—TEMPERATURE—ALEXANDER OGLE—CLERMONT DE TONNERRE—APPEARANCE OF IT—SURVEY—NATIVES—JOHN SAC—DIFFICULTIES WITH THE NATIVES—LANDING—SERLE ISLAND—HONDEN—SURVEYS—CORAL ISLANDS—VEGETATION—BIRDS—DISAPPOINTMENT ISLANDS—INHABITANTS—WYTOOHEE—OTUOHO—TAIARA—RARAKA—LANDING—ONE-HANDED CHIEF—HIS VISIT TO THE SHIP—INHABITANTS—CATCHING FISH—LEAVE-TAKING—GALE—NARROW ESCAPE OF PEACOCK—PORPOISE DESPATCHED—VINCENNES ISLAND—CRITICAL POSITION OF TENDER—LANDING—ARATICA ISLAND—COMMUNICATION WITH ITS INHABITANTS—LANDING—VILLAGE—DESCRIPTION OF ISLAND—FRESH WATER—FOOD—TENDER DESPATCHED TO KING GEORGE'S GROUP—VINCENNES AND PEACOCK DISCOVER MANHII AND AHII ISLANDS—SURVEY—LANDING—OBSERVATIONS—NATIVES—DESERTER—ECLIPSE—PEACOCK DESPATCHED TO RURICK ISLAND—VINCENNES PASSES TO NAIRSA—INHABITANTS—KRUSENSTERN'S ISLAND—METIA ISLAND—ITS APPEARANCE—SURVEY—LANDING—NATIVES—MISSIONARIES' KINDNESS—COSTUMES—ASCEND THE ISLAND—VEGETATION—APPEARANCE OF THE ISLAND—DEPARTURE—ARRIVAL AT TAHITI—ANCHOR IN MATAVAI BAY—OBSERVATIONS ON POINT VENUS—PROCEEDINGS OF PORPOISE—PROCEEDINGS OF PEACOCK—ARUTUA—SURVEY—NAIRSA OR DEAN'S ISLAND—CORAL BLOCKS—METIA ISLAND—OBSERVATIONS—TETUARO—FLYING-FISH—TIOKEA AND OURA—HISTORY OF PAUMOTU GROUP—CHARACTER OF ITS INHABITANTS—POPULATION.

On the 13th July, 1839, we had finished the necessary outfits and taken in our stores. The remainder of the latter were embarked in the store-ship Relief, which was ordered to land a part of them at the Sandwich Islands, and the rest at Sydney, New South Wales, after which to proceed to the United States by the way of Cape Horn.

At 5 P.M., having a light breeze, the signal was

made to get under way, and we were soon standing out of the bay under all canvass.

The day after our departure, we fell in with a Peruvian brig, from San Blas, in want of water, which we supplied. She had fallen to leeward of her port, and her people were reduced to much distress for want of that necessary article.

I had felt much anxiety lest the small-pox should

make its appearance among us, and looked forward daily with apprehension to the hour when the sick reports were made. On the 14th my worst fears were realized, for the Peacock made signal that they had a case of that disease on board. It fortunately proved of a mild type, and no other symptoms occurred that left any doubt of the entire extinction of the contagion. I was, therefore, greatly relieved, as day after day elapsed, to be assured that we had not only escaped so dreadful a scourge ourselves, but that there was no danger of its being communicated to the islanders.

Being now about to enter upon a new field of observation, in which we should necessarily come much in contact with the natives, I issued the following general order, to guard against any misdemeanours, and insure a correct deportment in both officers and men, during our intercourse with the islanders.

GENERAL ORDER.

The undersigned, commanding the exploring expedition, informs the officers and crews under his command, that as they are now about to visit the islands of the Pacific, and to have intercourse with their inhabitants, he wishes to inculcate on all in the squadron, that courtesy and kindness towards the natives, which are well understood and felt by all classes of mankind; and trusts that neither contempt of, nor interference with, their customs, habits, manners, and prejudices, nor arrogance over them, will be shown by any one belonging to the squadron; bearing always in mind, that savage nations have but vague ideas of the rights of property, and that theft committed by them has been the great cause of collision between them and civilized nations.

He would therefore enjoin upon all, great moderation in every thing respecting their intercourse with them, that no act of hostility will be committed, and that an appeal will be made rather to their good-will than to their fears.

That the manner of trading with them which will be established in the squadron, will be most strictly adhered to by all, and that in the event of difficulties or collision, all acts of force will be avoided, unless for self-protection; in short, our aim shall be peace, good-will, and proper decorum to every class, bearing constantly in mind, that the future intercourse of our countrymen with the natives of the islands we may visit, will very much depend on the impression made on their minds by us, and recollecting, that it is in the nature of the savage long to remember benefits, and never to forget injuries.

It therefore behoves us, wherever we go, to leave behind us, whether among civilized or savage nations, favourable impressions, not only as respects this national expedition, but of our flag and countrymen. The commander-in-chief feels a confidence in relying on the officers and crews to carry out these views, from their good and exemplary conduct heretofore, and trusts that he will not have to regret the confidence he reposes in them.

Any acts inconsistent with these views, will meet with the most exemplary punishment.

(Signed) CHARLES WILKES.
Commanding exploring expedition.

July 13th, 1839.
United States ship Vincennes.

I had determined, on leaving Callao, to take up the examination of the Paumotu group, recommended to the expedition by that distinguished navigator and promoter of science, Admiral Krusenstern, whose notes were made a part of my instructions. I therefore steered for the island of Minerva, or Clermont de Tonnerre, one of the most eastern of the Paumotu group, or Cloud of Islands, as the name implies. I deemed this to be the most interesting point at which to begin our surveys, and the researches of our naturalists, particularly as it was inhabited, and would thus enable us to trace the inhabitants from one end of Polynesia to the other, across the Pacific. At the same time, it afforded a very desirable point for magnetic observations, and a visit to it would also enable me to settle a dispute between the two distinguished English and French navigators, Captains Beechey and Duperrey, relative to its geographical position. The longitude adopted for Callao, from which our measurements were made, was $79^{\circ} 11' 10''$ W. This I found to correspond well with that of Valparaiso, the meridian distance between the two being $5^{\circ} 31' 50''$.

On the 14th we found the current setting to the north-west-by-west three quarters of a mile per hour.

The 15th, at one hundred and twenty miles from the land, we had changed the temperature of the surface to 67° , being a difference of 7° . At three hundred fathoms depth, it was found to be 51° . This day the current was found setting south-half-east, half a mile per hour.

The 16th brought several showers of rain, the first we had experienced since the 8th of June, off Valparaiso. Here we again tried the current, but found none. I now continued the usual experiments on the deep-sea temperature, dips, variation, currents, the visibility of a white object in water, and the dip of the horizon, for which I must refer the reader to the tabular results, only mentioning such as are generally interesting.

On the 18th, the surface water was 70° , and at two hundred and ninety fathoms depth 50° .

On the 24th, in longitude $99^{\circ} 39'$ W., we found the current setting south-east half a mile per hour, and directly against the wind. Our latitude was $15^{\circ} 35'$ S.

Until the 29th we had moderate breezes. The current this day was found east-north-east, one-third of a mile per hour. At 9 p.m. the wind came from the west. This evening we had a beautiful display of the zodiacal light. It was very bright; its altitude was 25° ; the upper part of the cone was not well marked, and its apex was not defined; the breadth of its base was 30° . A fair breeze from the south-west continued all the next day, when we had reached the longitude of $113^{\circ} 29'$ W., and latitude $17^{\circ} 36'$ S.

On the 31st, we passed over the locality of an island marked on the charts of Arrowsmith. Although we ran over its position with the squadron spread so as to cover an extent of thirty-five miles in latitude, and on its parallel for several degrees, lying-to at night, nothing whatever was seen to indicate land; and we therefore believe that it does not exist.

On the 4th of August, the current was found north one-third of a mile per hour.

at Tahiti, where he said he was married. At times it was difficult to control John's movements. On this occasion he soon became provoked at the chief's obstinacy; and the idea of their receiving all our presents so greedily without even thanks in return, excited his native fire; his eyes shone fiercely, and his whole frame seemed agitated. Half naked as he was, his tattooing conspicuous, he stood in the bow of the boat brandishing his boat-hook like a spear, with the dexterity of a savage. It was difficult to recognize the sailor in the fierce majestic-looking warrior before us. The chief and John kept passing words until both were becoming vociferous, the one appearing as savage as the other. John's animated attitudes and gestures were the admiration of all. As we could not understand him, he may have said many things to irritate the savage chief before he could be silenced, although he afterwards declared his innocence in that respect. I had been engaged for upwards of an hour endeavouring to overcome their fears, when I was joined by several boats from the other vessels. The officers being anxious to have communication with the natives, were desirous of landing, and I readily gave them permission to do so without arms. They passed a short distance from us, hoping to effect their purpose without opposition; but the natives separated, in order to oppose any landing. One or two officers swam through the surf without arms, and were boldly set upon by three of the natives, when they made a hurried retreat. This evidently gave the natives confidence, and their conduct became more violent. Mr. Couthouy requested permission to land with presents, under the protection of the boat, to which I consented. He swam on shore, pausing now and then, for the purpose of showing the trinkets. The chief motioned him away, but he landed on the rocks. The chief retiring, appeared as if somewhat alarmed, while Mr. Couthouy advanced towards him, holding out the presents. On being joined by another native the chief stopped, raised his spear, and with a shout and distortion of countenance, made a pass at Mr. Couthouy, who at once dropped looking-glasses, trinkets, &c., at his feet, and quickly made for the boat. The savage took no notice of the relinquished offerings, but advanced to attack him with his spear. When he had reached the edge of the surf, the chief made another thrust at him, but fortunately without injury. This precipitate retreat gave them still more confidence; they now began throwing pieces of coral, numbers of which struck the men in my boat. I felt no disposition to do them harm, and yet I had no idea of letting them see and feel that they had driven us off without landing, well knowing, however, if a forcible landing took place, and they made resistance, that injury would befall one side, and probably both. I, therefore, thinking that they had no idea of fire-arms, ordered several blank cartridges to be fired; but they took no notice of them*. According to John Sac, they hooted at these arms, calling us cowards, and daring us to come on shore. I then fired a small charge of mustard-seed shot at their legs, which did

not produce any effect. Then Mr. Peale, who was near by me, was requested to draw his ball, and load with mustard-seed, which he did; and Lieutenant North likewise fired, which caused the chief and all the rest to retreat, rubbing their legs. The officers were now permitted to land, under strict injunctions, in order to avoid all contact with the natives, not to leave the beach. So much time had been lost before I could get the instruments safely on shore, that I found it too late to make the observations I desired.

The natives whom we saw appeared a fine athletic race, much above the ordinary size. Their colour was darker than that of our Indians, but their features resembled them. No tattooing was observed on the men, and the women were not seen close enough to distinguish them. The hair of the former was long, black, and straight. The chiefs had theirs drawn back, and tied in a knot behind; the others had theirs hanging loose. They wore a small maro made of leaves, and the chiefs a pandanus leaf around their necks, probably to distinguish their rank. The women wore a piece of tapa as a petticoat; they were not oiled, and the heads of some seemed filled with ashes or lime. They spoke and understood the Tahitian dialect. The only information obtained from them was, that vessels had before been there, but had gone away without landing.

Immediately on their being driven from the beach, a large column of smoke was seen, no doubt a signal to the other inhabitants of the island. After being on the reef half an hour, we joined our boats, and returned on board near sunset. One canoe was reported the next morning, as having been seen from the Peacock.

The number of inhabitants that we saw certainly did not exceed one hundred and twenty.

The common house-fly was found in great numbers at this island. A number of fish were caught; some shells, and specimens of most of the plants, were also procured.

After lying-to for the night, we, at daylight on the 16th, bore away for Serle Island, having first ascertained our distance from the point of Clermont de Tonnerre by triangulation. We then ran by the patent log for Serle Island direct, by which means we made the distance between the two islands, twenty-six miles and two-tenths. No signs of any other island exist between these two. This will, I think, settle the question between Duperrey and Beechey. The latter is undoubtedly wrong as respects the longitude of Clermont de Tonnerre, which he places some twenty minutes too far to the eastward, and, I doubt not, some accidental error has occurred in his observations; for I find, at Serle Island, Duperrey, Beechey, and myself, agree within a few minutes.

Serle is a low coral island, and has a large and very regular clump of trees on its western end, which, at a distance, might be taken for a mound or hill. Its length is seven miles, and its width one and a fourth. It lies in a north-west and south-east direction. There are but few inhabitants on it. The position of its south-east end is in latitude $18^{\circ} 21' 10''$ S., longitude $137^{\circ} 4' 10''$ W.

The vessels again separated for its survey; boats were sent to trace the reef, and have communication with the natives, if possible. Before night we had completed our survey, and the boats re-

* I have since understood, however, that the poor natives have been fired upon by trading vessels engaged in the pearl-fishery, in mere wantonness, which will account for their hostile reception of us.

turned. Lieutenant Alden, in charge of one of them, reported that he had had communication with the natives, who were very friendly, and desirous of holding intercourse with him. He obtained several articles of curiosity from them. Some of them were tattooed. They were found to be arrant thieves, wishing to carry off every thing they saw, trying even to pull the copper off the blades of the oars,—and all this, apparently, without any idea that it was wrong. When first seen they were armed with spears, but observing that we did not attempt to land, they sent them away in charge of a boy, and swam off to the boat.

I now determined to wait until the next day, for the purpose of having further communication with them, and ordered every thing to be prepared for an early landing; but, during the night, the officer of the deck of the Porpoise ran into the Vincennes, and did both vessels some injury, smashing the starboard quarter boat, which broke adrift, cutting off our backstays, and losing some of the head-spars of the Porpoise. By this accident we lost our position, and in the morning found ourselves so far to the leeward, that I knew it must occupy much time—which we could not afford to lose—before we could regain the island. I therefore reluctantly bore away to the northward, to pass over the localities of one or two doubtful islands, on our way to that of Honden.

On the 19th of August we made Henuake, Honden, or Dog Island, and came up with it about noon. The boats were at once despatched, in order to ascertain if a landing could be effected, and the ships began the surveying operations. The surf was found very heavy on the beach, but the boats, notwithstanding, succeeded in landing. The number of birds seen hovering over the island was an indication that it was not inhabited, which proved to be the case. Several turtles were caught, and a number of specimens obtained. The survey of the island not having been completed, I lay by all night, and early in the morning despatched boats to complete the examination of it, and to effect a landing. The greatest part of the day was spent on the island. Near the place where we landed there has been a channel to the small lagoon in the centre of the island, and there is another of a similar character on the opposite side. They were both dry, and the sea-water can only communicate with the lagoon at very high tides.

The landing on a coral island effectually does away with all preconceived notions of its beauty, and any previous ideas formed in its favour are immediately put to flight. That verdure which seemed from a distant view to carpet the whole island, was in reality but a few patches of wiry grass, obstructing the walking, and offering neither fruit nor flowers to view; it grew among the rugged coral debris, with a little sand and vegetable earth.

The principal trees and shrubs are the pandanus, boerhaavia, and pisonia. It is somewhat surprising that a few trees forty or fifty feet high should have found sufficient soil to protect their growth. Most of the trees, however, are of stunted size, being not more than ten to fifteen feet in height, and eighteen inches in diameter.

The number of birds on the island was incredible, and they were so tame as to require to be

pushed off their nests to get their eggs. The most conspicuous among them was the frigate-bird (*tachypetis aquilus*); many of the trees were covered with their nests, constructed of a few sticks. The old birds were seen, as they flew off, inflating their blood-red pouches to the size of a child's head, and looking as if a large bladder were attached to their necks. The gannets, sooty terns, and the beautiful tropic-bird, were in countless numbers; the former guarding their eggs, (which were laid on the ground without a nest,) with care, remaining by them, and even suffering themselves to be captured without resistance. Their hoarse croaking was quite deafening.

Some droll sights were seen of crabs walking off with snakes, and both again seized by some stout bird and borne away. Armies of soldier or piratical crabs (*paguri*) were seen moving in all directions with their shells. We enjoyed ourselves much, and found no use for our guns, powder, and shot; as many specimens as we could desire were taken with the hand, both old and young. In some cases the tropic-birds were taken off their nests, and from others their eggs were taken without disturbing them; indeed, I have never seen any barn-yard fowls half so tame.

The various snakes, the many-coloured fish, the great eels, enormous and voracious sharks, shells, large molluscs, spiders, with the curious lepidoptera, seemed to have quiet possession, their webs stretching in every direction, and occasioning us much annoyance: all gave a novelty to the scene, that highly interested and delighted us. In the afternoon we returned on board, loaded with specimens; and the survey being completed, we bore away on our course.

There are no cocoa-nut palms on the island, as has been reported by Captain Fitzroy, in his voyage; nor is there any fresh water to be found. Some of our gentlemen saw on the beach some broken oars and remains of a boat, but nothing could be identified.

Pandanus trees exist on the south side.

On the 23d of August we made the Disappointment Islands of Byron: they are two in number, called Wytochee and Ootoho.

On the morning of the 24th we were off the north-west end of the former island, which lies in latitude $14^{\circ} 9' 30''$ S., longitude $141^{\circ} 17' 50''$ W. Many canoes came off to the ship: as they approached the vessels, the natives were heard, while at some distance, singing; and, as they drew near, the clamour increased, accompanied with much laughing, and many gesticulations; but none of them could be induced to come on board, and they were not willing to part with any thing but some pieces of old matting. An attempt was made to get some of their paddles, but they rather ridiculed the idea of parting with them.

The canoes were quite small, being only from twelve to fifteen feet long. They generally contained two, and sometimes three natives. Each canoe had an out-rigger, and a projecting point, both before and behind, by which they get into them from the water. They are formed of strips of cocoa-nut wood sewed together. Two persons can carry them. Their paddles were curved backwards.

In order to dispel their fears, articles were given them gratuitously, and by way of showing their gratitude, they began a monotonous song or

chant. They would occasionally stop, look up, and return the laugh of the crew by a grin; apparently enjoying the sport as much as any of them.

These natives are peculiar, and appeared totally distinct from any others we met with in this group, having strong wiry beards and mustaches, and a different physiognomy.

I sent one of the boats to the shore, with the interpreter, under Lieutenant Case, but they refused to allow them to land. No actual violence was attempted, but Lieutenant Case reported the impracticability of landing without opposition, and injury to themselves and natives. They received several presents, but they had no fruit to give in return, as their cocoa-nuts were tabooed. They gave, in exchange, some articles, consisting of cloth, fish-hooks, adzes, and pearl-shells. Among the articles seen in their possession, was a fine silk pocket-handkerchief, showing that they had had communication not long since with vessels. They refused to part with their spears or clubs. Their adzes were rudely made, but ground very sharp; they were formed of the tridachna or cassis shell, lashed on a handle somewhat resembling our adze-handles. Knives were also observed in their possession.

Wytoohoe is formed of islets connected by a washed coral reef, of irregular shape, with a lagoon having many knolls in it, of various sizes, some four or five feet above the surface. The south-east portion is the largest and most thickly wooded, and contains the greatest number of inhabitants.

After the surveying duties were over, we found ourselves at the north-west point of the island. The natives who had refused to allow us to land, were now seen waving green boughs, which is the general sign of good-will, and a desire to have communication, and many were seen dancing on the beach, with their spears in their hands. I gave orders to send the boats to the shore, but on reaching it we found them still averse to our landing; they, however, assisted Mr. Couthouy through the surf to the beach; but when he had reached it, they surrounded him, and led him back very gently to the water, making him distinctly understand that they would not permit him to visit their huts. They were extremely desirous of obtaining buttons, pieces of iron, and cloth. We gave them several small articles, but they could not be persuaded to part with their spears and clubs. The chief, who was a very old man, was seen lying under a pandanus tree, close to the beach, and on being told I wished to see him, and make him a present, he arose; his hair was quite gray; and he had a long and stiff white beard; his legs were enlarged with the elephantiasis, the swelling being of a white colour, and so large and regular that many thought he had on sailor's trousers. About twenty natives were with him on the beach. After being shown the presents I had for him, he was induced to wade into the water up to his neck to receive them. On coming alongside the boat, he seemed somewhat uneasy, until he had gone through the ceremony of rubbing noses, which I must confess was any thing but agreeable with so dirty and diseased a person. He was extremely anxious to get hold of the presents, and amused us by at once plunging them under the water, seeming in no manner concerned about keeping them dry. He was all the while making a noise like the purring of a cat. In return

for my presents, he at once offered me the short mantle of matting which he had over his shoulders.

They understood the Tahitian language. The chief gave his name as Korokoa, and the name of the island as Wytoohoe. He appeared about sixty years of age, and his teeth were all sound and good.

His brother was the priest, to whom I also gave some presents. This man had a very remarkable head, the forehead being very high, and narrow almost to deformity, with a dark and suspicious bright eye. His hands were deformed, being destitute of joints, and the lower part bent at right angles. The son of the chief was a remarkably fine-looking lad of fifteen. We saw no women, as they had all been hid. The colour of these natives was much darker than those seen before; in some the hair was inclined to frizzle, and the beard curly. All the grown men that I saw had mustaches; their features were strongly marked with a good-humoured expression of countenance; they wore the maro, and some had a few feathers in their hair.

The boats of the Peacock succeeded in landing on the east side of the island, where the coral reef shelves at about an angle of 10°, and having the wind blowing obliquely on it, there is comparatively little surf. Some half a dozen natives were here seen; an officer approached them making signs of friendship, which they returned. At first they seemed quite timid, meeting the advances made in a manner which showed that they were anxious to propitiate us, but still fearful. They were re-assured of our good-will by offering them some small presents, when two old men came forward, holding their arms upright above their heads, with their hands open, and became desirous of shaking hands, and even offered to rub noses. Each was armed with a stick, (for it could not be called a spear,) six or seven feet long: on some of them were fastened the jaws of the porpoise.

They appeared to be greatly astonished, and their looks bespoke amazement at our appearance. Occasionally, as if to satisfy themselves of the reality, they would put their hands on us. On receiving a few trifling presents, they broke forth into the same song or chant that was heard on their first coming towards the ship. The younger ones were the first to show confidence, and were much disposed to laugh and joke with the men; and some of the officers thought they recognized those who had been in the canoes the day before.

On our gentlemen requesting to go to their huts, they seemed to be thrown into a kind of stupid wonderment, but on being assured they had nothing to fear, their countenances brightened up, and they led the way through the wood to an open space, surrounded by pandanus and cocoa-nut trees. These natives had evidently had communication with vessels, but I very much doubt if any had landed before. They did not appear at all alarmed at the firing of guns, but were much surprised to see the birds killed, holding up their hands, and making ejaculations. They had no idea of the principles of barter, and allowed any thing to be taken without opposition, receiving any articles in return with gratitude and delight. Iron was prized more than any other thing. On reaching the huts, inquiry was made of them for their women, when a general burst of laughter ensued,

and they gave us to understand, that they had penetrated our motive for visiting their island—"That as we inhabited an island without any women, we wanted to have some." Nothing more was said to them on the subject. They accompanied us to the boats, and at parting went through the same ceremonies of rubbing noses, shaking hands, and raising their arms with the palms towards us. According to the estimate I made of the inhabitants, the number was about ninety. From the great age of the chiefs, and the absence of wounded or scarred individuals, I should conclude they lived in peace. They, however, gave their neighbours on the small island to the west (which they called Otooho) a very bad name. Water in small quantities is to be had on the eastern section of the island, and a little biche-de-mar might be taken on the reefs. A small rat was very troublesome to the natives. This island has some cocoa-nut, bread-fruit, and pandanus trees; the pisonia, tournefortia, and the shrubs that are common to the low islands, also grow upon it.

At nightfall the squadron was put under short sail, supposing that the current by the morning would take us to the leeward near Otooho, a distance of ten miles. It lies west-north-west of Wytoohoe, distant twelve and one-third miles, and is distinctly seen from it, like a round knoll. This appearance is owing to the trees upon it, for the land is as low as coral islands usually are. We found by the morning, that the current had been about one mile per hour to the west, and therefore much stronger than I anticipated; we were in consequence some distance to leeward of the island. With the light wind, I knew the ship could not reach it before the afternoon. I immediately sent the naturalists on board the tender Flying-Fish, and gave Lieutenant Pinckney orders to endeavour to land them, and to pass around the island and survey it; neither of which he succeeded in doing. The survey was finally completed by the boats of the Vincennes and Peacock. The naturalists tried to effect a landing, but were opposed by some dozen natives, who were resolute in preventing them from going beyond the water's edge; in other respects, they were disposed to be quite friendly.

The naturalists in the afternoon endeavoured to effect a landing at another place, out of sight of the natives, and succeeded. Mr. Brackenridge, on landing the second time, ran to the thicket, in order to lose no time in making collections, and was employed in gathering specimens, when two stout natives came running up, and made him understand, by very intelligible signs, that he must return to the boat; he pretended not to understand them, and endeavoured to proceed, but they went before him, and crossed their clubs, determined that he should go no farther. This caused him to laugh, in which the two natives joined. Finding there was no alternative, he took an oblique direction towards the boat, hoping by this means to enlarge his collection, which he succeeded in doing, while the natives, as he describes it, shouldered him out of the bush, and then towards the boat. The rest of the party having gone up to the huts, were at once seized and shoved down towards the boat, and into the surf, where they presented rather a ludicrous appearance, with the danger of drowning on the one side, and the natives on the other, who had them completely in their power, as they had

neither arms nor any other means of defence. No harm, however, was done them, but the alarm incident to being threatened with spears. The only mishap met with was the loss, by one of the gentlemen, of a pair of spectacles, and a bruise or two from the coral, in their hurried retreat. As the surf was heavy, life-preservers were sent to those who could not swim; and after much detention, they reached the boat in safety. Had such a circumstance occurred at Clermont de Tonnerre, I am satisfied that most serious consequences would have resulted to us.

The superficial extent of the island of Otooho is about a square mile; it has no lagoon, is well covered with trees, and has fresh water. There were nineteen men counted, which would make the population about fifty souls. No women or children were seen.

At all the inhabited islands we found the greatest numbers of the common house-fly: while at Honden Island (uninhabited) none were perceived. No one can estimate the annoyance they cause, until it has been experienced.

About three quarters of an hour after sunset the naturalists were again on board, and we bore away on our course to Raraka. Having been informed that several islands were supposed to be in this neighbourhood, that were known to the natives, but not laid down on the charts, I determined to lie-to during the night. At daylight we again bore away, spreading the squadron in open order of sailing.

On the 29th, at daylight, land was reported, and we soon ascertained that it was not laid down on the charts. It is low, nearly of a circular form, and well covered with trees and shrubs, and has a lagoon of some extent. Its centre is in latitude $15^{\circ} 42' 25''$ S., longitude $144^{\circ} 38' 45''$ W. I named it King's Island, after the man at the masthead, who first discovered it. After completing the survey of it, we landed on its lee side, where the water was quite smooth, and spent the afternoon in examining it. There were no natives on it, but every indication that it had been inhabited recently by a party of pearl-fishers. The lagoon appeared to be well supplied with the pearl oyster. We found on the island two small springs of fresh water, near its lagoon, and a good supply of cocoa-nuts. Many specimens of plants were obtained, and several interesting objects of natural history were added to our collections.

In the morning we bore away for Raraka, and shortly afterwards made it. As we approached it, another island was discovered, to the northward and westward, which was not laid down on any charts.

On Raraka we soon discovered a party of natives, near the entrance to the lagoon, waving a Tahitian flag, three horizontal stripes, red, white, and red. They were partly dressed, some in shirts, without hats, others with vests, and others again with trousers of all colours. I joined the schooner, stood in for the mouth of the lagoon, and landed.

Nothing could be more striking than the difference that prevailed between these natives and those of the Disappointment Islands, which we had just left. The half-civilization of the natives of Raraka was very marked, and it appeared as though we had issued out of darkness into light. They showed a modest disposition, and gave us a hearty

welcome. We were not long at a loss as to what to ascribe it: the missionary had been at work here, and his exertions had been based upon a firm foundation; the savage had been changed to a reasonable creature. Among the inhabitants was a native missionary, who had been instrumental in this work. If the missionaries had effected nothing else, they would deserve the thanks of all those who roam over this wide expanse of ocean, and incur its many unknown and hidden dangers. Here all shipwrecked mariners would be sure of kind treatment, and a share of the few comforts these people possess. No savage mistrust and fear were seen here. The women and children came about us, receiving our trifles. They showed much joy and curiosity at the sight of us, and were eager to supply our wants.

I was particularly struck with the modest and quiet behaviour of the native missionary, who was a Tahitian. He kept himself aloof, whilst all the others were crowding round to partake in the presents we were distributing, and seemed much gratified and astonished when I selected him out as the recipient of a present similar to the one I had given the chief.

All the males' heads were shaven, somewhat after the fashion of a Dominican friar. This practice is said to have been adopted by the missionaries at Tahiti, for the sake of cleanliness, and also to distinguish the Christian from the heathen party. The women have theirs cut close, and some are clothed in a pareu, consisting of three or four yards of cotton, others in a loose gown. They were any thing but good-looking; but the men were tall and well made. The variety of apparel was droll enough. As for the children, I have seldom seen finer; all were well formed, and as cheerful as they could be. They were for the most part naked.

This was the first island on which we observed the dawning of Christianity and civilization. The native missionaries, although they are yet ignorant of most of the duties enjoined upon a Christian, still do much good in preparing the way. Many learn to read, and some even to write, under their tuition; yet they have many impediments thrown in the way of their efforts by the introduction of spirits by the whites. The old chief, and others, are much addicted to the use of it, and the vessels resorting here for the pearl-fishery generally employ native divers, and pay them for the most part in rum or whiskey. We found here an Englishman who had belonged to a schooner engaged in the pearl-fishery. He told me he had been left there sick by his captain, and had been kindly treated during his stay of three months on the island. I was in hopes of obtaining some information from him, but he knew little or nothing of the language, and was, moreover, a stupid fellow. I gave him a passage to Tahiti, whither he was desirous of going, in the tender.

Having some business on board, I invited the chief to go off with me: he first inquired if all the boats and men were to stay; on my telling him they were not, he said he would go on board if I would also take his wife and her brother; to which I consented.

The chief had lost one hand, which he informed me had been bitten off by a shark whilst employed in diving for shells. We became great friends, and he thought it necessary to be at my side the

whole time. He was an odd old man, and proved before we left him that he had become acquainted with some of the vices of civilization.

We all embarked, soon reached the tender, and bore away for the ship, some three or four miles distant. The old one-handed chief now came up to me in a very mysterious manner, and untying a knot in the tail of his shirt, (which was the only garment he wore besides his maro,) with no small difficulty, with one hand and his teeth, drew from it a small dirty piece of linen, tied up as a bag; this he produced with great form, and evidently expected to astonish me. The contents proved to be a few small discoloured pearls; these he begged me to accept, but I declined to receive them. We now reached the ship, and I ordered every thing to be shown them. Their surprise was very great.

The natives were much amused with the ship, and surprised at the number of men on board. Many small presents were given them. When they were about taking their departure, the old chief complained of being quite sick, and his whole air and manner showed that he was much dissatisfied. The reason could not be imagined. The vessel had so little motion, it was thought it could not originate from sea-sickness. I therefore told the interpreter to inquire of him what was the matter. No answer was given for some time, but they consulted much among themselves in a low tone. The question was repeated, when the old chief's wife answered, "that I had not returned the present that had been offered me, and that the chief was not pleased; for, according to their customs, the offering a present to me entitled him to receive one in return." As very many gifts had been made him already, this amused me not a little. On asking what it was they wanted, they at once signified whiskey, which they said was always given them when they went on board ship; and the chief wanted some, for he was very sick. I accordingly ordered a bottle of water with a gill of whiskey in it to be given them, and the moment they smelt it their manner was changed; they became all animation, and left the ship in great good humour. The brother was an intelligent native; he drew for me with a piece of chalk, on the deck, with considerable accuracy, all the islands he was acquainted with, giving their relative situations and the native names;—that of the island we had seen the day before, as Tai-a-ra, and the one to which I had given the name of Vincennes Island, as Kawahe. He informed me of three small islands to the southward of Sacken, which were afterwards found by the Porpoise, during the cruise to this group on which I sent her in 1840; his knowledge of the western part of this group was quite surprising. I place the entrance to the lagoon of Raraka in longitude 144° 57' 40" W., latitude 16° 6' 25" S.

The entrance is on the north side of the island, about one-third of its length from the western end. It is a narrow passage, but will admit a small vessel. The current runs very strong out of the lagoon, so much so, that a boat cannot be pulled against it. The water in the entrance is from five to eight fathoms deep, but there is no advantage in entering, as the reef is quite as steep within. A small vessel may anchor on the outside, in ten fathoms, close to the shore. This island is nearly

of the shape of an equilateral triangle, and its southern and eastern sides are formed by a submerged reef. It is fifteen miles on each side.

I attempted to sound the lagoon. We began at the entrance, but found, within a very short distance, that the depth increased to thirty fathoms, the water being as blue as that of the ocean. So great a depth made it an undertaking far beyond what my time allowed. The sounding, in every case of any depth, was coral sand.

Towards sunset we all embarked, and my leaving with the old chief was amusing. He with all his household and retinue began to cry and whine over me, so that I was glad to escape from the display of so much friendship and parental affection.

After reaching my ship, the Porpoise again joined us. She had been despatched early in the morning towards the eastern end of the island, to ascertain its extent, and fix its point in that direction; not being able to accomplish this, Lieutenant-Commandant Ringgold returned for further orders. This night we lay to under the lee of Raraka; but as it proved dark and squally, we stood to the northward, and about one o'clock we were surprised by seeing a signal from the Peacock, of danger close aboard, under the lee. I immediately tacked, and we soon cleared it. It proved to be the reef of Kawahe, over which the surf was breaking violently. The Peacock was so close to it that Captain Hudson felt himself obliged to stand on his course, rather than run the risk of missing stays, and continued to run along it for several miles, until, by its trending to the westward, he was enabled to clear the danger.

On the 1st of September, at daylight, we found ourselves between the two islands, and the Peacock was out of sight; but two hours afterwards she was again seen. I made signal to the Porpoise, and despatched her to examine the south-east side of Raraka, and thence to follow on to the westward as far as Krusenstern's Island, passing along the south side of Nairas or Dean's Island. I then despatched the Peacock to the north end, and the tender to the south end of Kawahe, to secure meridian observations, whilst the Vincennes was employed in surveying its eastern shores. The wind was well adapted to our object, and at sunset we met off the north end, having completed our work. The current was tried, but we found none. The wind was fresh from the eastward, with occasional squalls. On the morning of the 2d, I determined to land the naturalists on the newly-found island, and for this purpose made signal to the tender to come within hail. My ship was lying with her main-topsail to the mast, and forging ahead about a knot an hour. The tender came up on our lee quarter, and luffed in an awkward manner, directly across our bow. Her mast just escaped coming in contact with our jib-boom. I at once ordered all the sails of the Vincennes to be thrown aback, which stopping her way, prevented the dreadful accident of running the tender down. It was a most miraculous escape.

We landed on Vincennes Island, and obtained the usual observations. Its south point is in latitude $15^{\circ} 59' 48''$ S., longitude $145^{\circ} 9' 30''$ W. It was found to be sixteen miles long by ten wide; its greatest diameter lying north and south. It is a narrow annular ridge, consisting of many blocks and slabs of coral, which give a clinky sound when struck. The coral shelf seemed to dip in one

place at an angle of 15° , forming a ridge, which was so low that the tide was beginning to flow over it before high water. There is an opening into the lagoon on the south-west side; on its south-eastern part is a high clump of trees, looking like a knoll at a distance. The rest of the island is covered with a growth of bushes, ten or twelve feet high. The blocks and slabs above spoken of were very much water-worn, and were strewn about on the coral shelf. This, where I measured it, was five hundred feet wide, but it is not of equal width in all parts. Among the coral blocks was some sand, and in many of them were found large specimens of the chama and other shells. I was informed at Raraka that there were a few inhabitants on Vincennes Island, but none were seen by us. They were said to live on the southern end of it.

After finishing our observations we returned on board, and made sail for Aratica or Carlshoff Island. We arrived off it in time to secure its connexion with Vincennes Island: the distance was found, by patent log and astronomical observations, to be twenty miles to the westward. We then stood on and off its eastern point for the night. The next morning at daylight we began its survey. The tender was despatched round its northern shore, whilst the Peacock and Vincennes took its southern side, running close along the reef, which continued submerged until near its south-western end, which is twelve feet high and thickly wooded. On rounding the point, we saw a white flag waved by several natives on the beach. I immediately despatched a boat with an officer, who brought off two of the principal natives, one of whom spoke a little English, and proved intelligent.

I was informed by one of them that there were about twenty natives on the island, and that they had frequent intercourse with vessels. Water I was told was to be had on the island, and finding ourselves short, I despatched several boats to procure it. Aratica is eight miles in length by five in breadth.

The position of the west point of the island was determined to be in longitude $145^{\circ} 39' 46''$ W., and latitude $15^{\circ} 26'$ S.

Having obtained all the water we could in the afternoon, amounting to three hundred and ninety gallons, I directed the course of the squadron to the northward and eastward, towards King George's Group, having fresh breezes from the east-north-east. The next day at noon, the most southern island was in sight, and finding the ships could not make it without much loss of time, I despatched the tender to the group, with orders to circumnavigate and examine the islands, and then to follow us to Tahiti; whilst the Vincennes and Peacock bore away to the westward, for the doubtful island of Waterlandt. At 5 p.m., it was discovered from the masthead, and at six from the fore-yard, bearing north-west-by-north.

We stood on and off all night, and at daylight again made the land; we reached its north point at four o'clock p.m., when the Peacock was ordered to take the east, whilst the Vincennes took the west side; we continued the survey until dark, when we took the necessary angles to resume the work in the morning. Many natives were seen, and smoke was rising in several places. On the 6th of September, we continued our surveying operations, and shortly afterwards joined the Peacock, Captain

Hudson having completed his side of the island, The Peacock now made the signal of land to the westward. Wishing to land and make an examination of this island, as well as to have communication with the natives, the boats were lowered, and the naturalists from both vessels, and many officers, landed, and rambled over the western part of the island for several hours. The few natives were very friendly, and informed us that the native name of the island was Manhii. This is, in all probability, the Waterlandt of Schouten and Le Maire, and also Wilson's Island of the Duff. There is a large and deep entrance in the south-east end into the lagoon of Manhii Island, in which the natives informed me vessels had often anchored, whilst engaged in the pearl-fishery. Soundings are not to be had with one hundred fathoms of line, fifty feet from the edge of it.

To our surprise, one of the men of the Peacock, by the name of Penny, here deserted from the boats. He had been formerly much among the islands, engaged in pearl-fishing, and spoke the language well. Strict search was made for him, until the officer in charge of the boats became satisfied that he had no intention of returning. On hearing of it, I was convinced that he had chosen this opportunity to leave us, particularly as he must have been aware that there is very frequent communication with Tahiti. The chief of this island informed us that he was a relative of the one-handed chief of Raraka.

The east end of the island lies in latitude $14^{\circ} 26' 22''$ S., longitude $146^{\circ} 4' 20''$ W.

Several of us had our feet severely blistered from going barefoot on the reefs, and were made very uncomfortable from this cause. After returning on board, we bore away to the other island, to which the natives gave the name of Ahii. I have also added that of Peacock Island, to mark that its correct position was first established by the expedition. It lies west three-fourths north per compass from Manhii, and was found by the patent log to be eight and six-tenths miles from reef to reef. On coming up with it, the Vincennes and Peacock took opposite sides, and surveyed it; and the next morning parties landed. I was hardly able to move, on account of my feet, but the desire of getting observations of the eclipse, urged me to make the attempt; I only succeeded in getting the last limb and good observations for time. After four o'clock, we returned on board. This island is not inhabited, and has only a small boat-entrance into its lagoon, on the west side.

Being desirous of making the examination of as many of the coral islands as possible, I now despatched the Peacock to the Arutua or Rurick Islands, with directions to examine them, and then to proceed along the south side of Dean's Island, whilst in the Vincennes I steered for the north side of the latter, to pass along it. We then parted company, and Dean's Island was made by us the next morning. After establishing our position, we ran along the northern shore, and reached its western point at 4 p.m. Off this point we obtained sights for our chronometers, which put it in longitude $147^{\circ} 53' 34''$ W., latitude $15^{\circ} 5' 15''$ S. During the day we passed an entrance into its lagoon, and some natives came off from a small village in two canoes to visit us. They acknowledged themselves subjects of queen Pomare of

Tahiti, and were very desirous we should land. They brought off a few shells, and told us they had many fowls, pigs, taro, &c. There are several islets in the lagoon covered with trees. Vast numbers of large blocks were seen lying on its reef. The shore-reef is not more than two hundred feet wide, and is composed of only one shelf. The current was tried, but none was found. We had the wind very fresh from east-by-north all day. When off the western point we discovered Krusenstern's Island to the west, and hauled up to pass between it and Nairsa. The passage was found to be twelve and two-thirds miles wide, and free from all danger. In the evening I stood for Metia Island, to the southward. Nairsa or Dean's Island was found to be sixty-six miles in length.

On the morning of the 9th of September we were in sight of Metia or Aurora Island, the north end of which is in latitude $15^{\circ} 49' 35''$ S., longitude $148^{\circ} 13' 15''$ W. It was totally different in appearance from those we had met with, though evidently of the same formation. It was a coral island uplifted, exposing its formation distinctly, and as such was very interesting. On approaching its eastern end, I sounded at about one hundred and fifty feet from its perpendicular cliff, and found no bottom with one hundred and fifty fathoms of line. The cliff appeared worn into caverns. We landed close in its neighbourhood, and on measuring its height, it proved to be two hundred and fifty feet.

All the surveying boats having returned, we bore away for Tahiti, at which island we arrived on the 10th. At 5 p.m., Lieutenant-Commandant Ringgold boarded us, and brought off Jim, the pilot; he reported all well on board the Porpoise. At sunset, we anchored in Matavai Bay. I hastened to ascertain the correctness of our chronometers, and the next day landed the instruments on Point Venus, and took observations. They gave for its longitude $149^{\circ} 31' 13.5''$ W. Krusenstern makes it $149^{\circ} 29' 17''$ W.

Lieutenant-Commandant Ringgold, in the Porpoise, after parting company on the 1st of September, proceeded to the south side of Raraka, in fulfilment of his instructions. He found the whole southern part of it a bare reef, with the surf breaking violently over it. When off the south point, he made the isle of Katiu or Sacken to the south, and that of Makima to the east; and connected them; after which he proceeded to the westward, passing Aratica (Carlshoff), and thence to Nairsa or Dean's Island, which he made on the 5th; fixed its western end, passed along its south to its western side, and thence to Krusenstern's Island, to the westward, which he circumnavigated; from thence went direct to Tahiti, anchored in Papieti Harbour on the 9th, and the next day proceeded to Matavai Bay, the place of rendezvous.

On the 12th, the Peacock arrived, having passed to the Rurick Islands or Arutua, the north end of which lies in latitude $15^{\circ} 15' 00''$ S., longitude $146^{\circ} 51' 00''$ W. A landing was attempted at several places in the boats. One of them succeeded near a cocoa-nut grove, but the two that went to land at the village, found the surf too high to attempt it.

The north shore of Arutua Island was surveyed, when they bore away, and connected it with Nairsa,

or Dean's Island, along which they ran the whole length of its south side by daylight. The last named island is for the most part a washed reef, with no opening. The compact coral blocks showed themselves here more conspicuously and in greater numbers than before seen.

After making the west end of Nairsa, Captain Hudson sighted Krusenstern's Island, and then stood for Metia Island, to the southward, on which the officers landed the next day on its western side. Their examination confirmed the facts already given relative to its appearance.

On this island the magnetic observations were made, with the Peacock's instruments. Captain Hudson also sounded with the deep-sea thermometer, when within a mile of the island, in six hundred fathoms; the temperature at the surface of the water was $80\frac{1}{2}^{\circ}$, that below, $44\frac{1}{2}^{\circ}$. The next day they made Tetuaroa, to the northward of Tahiti, formerly celebrated as the resort of the Tahitians, for the purpose of recovering from the bodily diseases brought on by their debaucheries, &c. It is a low island, about six miles long, with a few trees upon it, and a reef off its southern end, extending half a mile. It is plainly to be seen from the high ridges of Tahiti.

On the 14th, the Flying-Fish arrived. She had visited and surveyed King George's Group, which appeared well inhabited, and have entrances to their lagoons on the west side. The native name of the two islands is Tiokea and Oura. The south-west end of Tiokea is in latitude $14^{\circ} 31' 12''$ S., longitude $145^{\circ} 9' 30''$ W.; Oura bears S. 68° W., distant four and a half miles. Then the tender passed to Manhihi and Ahii, round the north side of Nairsa, or Dean's Island, to Tahiti.

Little appears to be known of the history of the Paumotu Islands, or their inhabitants. At Tahiti I obtained some information from one who had been much among the group, and believe that it is as authentic as can be obtained, and may be relied on.

The Island of Anaa or Chain Island, has been the principal seat of power, the natives of which had frequently waged war on the others, and succeeded in conquering all to the west of Hau or Bow Island, with which they have frequently fought.

In the reign of the first Pomare, under Tomatiti, they even attempted the conquest of Tahiti, and succeeded in overcoming the small peninsula of Taiarabu. The story is, that they were about to continue their attack on the larger island, when Tomatiti received a written letter from Pomare, which caused hostilities to be suspended; and after further negotiation, finally led to Tomatiti's retiring from the island with a large present of hogs, tapa, &c. Notwithstanding this, the Chain Islanders remained nominally under the government of Tahiti, and now acknowledge their dependence on it.

Anaa or Chain Island, is one of the smallest, yet it is the most thickly-peopled island of the whole group. It is said to contain five thousand inhabitants, which large number is accounted for by the conquest of the other islands, and taking their inhabitants off as captives. In the list of the islands and their population, it will be seen how few remain on the other islands in comparison with this number. The whole island is one cocoa-nut grove, and the principal food is fish and cocoa-

nuts. The former are caught in large quantities in the lagoon. A great change has been brought about in the character of these islanders within the last twenty-five years, during which the Tahitian missionaries have been established at Anaa. Before this period, the inhabitants were cannibals. Since the residence of the missionaries, they have imbibed better tastes; and the Christian influence has also made them more peaceful. This change was first evinced by the treatment of their captives, whom they allowed to return, if they chose, to their own island; but very many of them had married at Anaa, and became permanent residents there, and few have taken advantage of the permission to return. Notwithstanding the numerous population, they are said to have an abundance of food. The people of Anaa still consider the inhabitants of the eastern islands as cannibals; but their statement in this respect is little to be depended upon, for they have no communication whatever with those whom they class under this denomination, seldom extending themselves beyond Hau or Bow Island.

The Paumotians are considered more warlike than the Tahitians, for which reason Pomare I. kept a body-guard of them in preference to his own subjects. They have the reputation of being an honest and trustworthy race.

These islanders are certainly not all from the same stock; and those of the Disappointment Group, whom we were much struck with at the time of our visit, in particular differ from the others. Since we have seen all the different Polynesian groups, these appear, however extraordinary it may be, to resemble the Feejee islanders more than any other.

By all accounts, they speak a different dialect from that of the Tahitian nation. The difference is, however, not great, for I was told that it required but a few weeks for any of the natives to acquire it. Mr. Hale met several Paumotians at Matavai Bay, and among them he found one by the name of Tuoni, who confirmed the accounts I have detailed above.

The population of this group I have no where seen given; I have therefore endeavoured to obtain the most satisfactory information in relation to it: the whole amounts, in round numbers, to about ten thousand, as follows:

Anaa	5000
Manhihi	100
Araticia	60
Nairsa	70
Metia	350
Rurick	200
King George's	700
Vincennes	30
Raraka	40
Wytoohee	70
Otooho	40
Bow Island	60
Manga Reva, or Gambier Island	2000
Serie Island	30
Clermont de Tonnerre	120
	8870
Rest of the group	1130
	10,000

The advancement of civilization by their intercourse with the whites, together with the missionary influence, will put an end to cannibalism, and promote peace among all the islanders of the group;

not only ameliorating the condition of the natives, but protecting the unfortunate mariner who may be wrecked within this dangerous archipelago.

From what has been said of the Paumotu Group, it is evident it can afford but few advantages for commercial enterprise; the only article which of late years has been sought for among the islands, is the pearl oyster-shell, of which considerable

quantities have been obtained. The vessels engaged in the fishery belong to foreigners, who reside at Tahiti. The mode of taking the oysters is by natives, who are employed as divers, for a very small compensation. It is much to be regretted, that the traders should have recourse to the demoralizing effects of spirits, in stimulating their exertions.

CHAPTER XI.

TAHITI.

GENERAL ASPECT OF TAHITI—ARRIVAL AND RECEPTION—GENERAL FIGURE OF THE ISLAND—ITS GEOLOGICAL STRUCTURE—AN OBSERVATORY ESTABLISHED—SURVEY OF HARBOURS—LONGITUDE OF POINT VENUS—HEIGHT OF MOUNTAINS—THE GOVERNOR OF MATAVAI—HIS HOSPITALITY—CHURCH AT MATAVAI—CHARACTER OF THE NATIVES—SCHOOL AT PAPIETI—GENERAL DIFFUSION OF EDUCATION—COMPLAINTS OF THE AMERICAN CONSUL—COUNCIL OF THE CHIEFS—INFLUENCE OF THE MISSIONARIES—CHANGE OF THE NATIONAL DRESS—GENERAL VIEW OF THE LABOURS OF THE MISSIONARIES—IMPROVEMENT IN THE NATIVE CHARACTER—CAUSES OF WANT OF INDUSTRY—CONSTITUTION OF TAHITI—COURTS OF JUSTICE—QUEEN AND ROYAL FAMILY—JUDGES OF THE SUPREME COURT—STATE OF PARTIES—CASE OF THE CATHOLIC PRIESTS—DWELLINGS OF THE NATIVES—APPEARANCE OF THE FEMALES—DRESS OF THE TWO SEXES—TASTE OF THE NATIVES FOR FLOWERS—COOKERY AND MODE OF EATING—MUSIC OF THE ISLANDERS—EXPEDITION TO LAKE WAIHEREA—FOREIGN TRADE OF TAHITI.

THE beauty of the distant view of Tahiti has been celebrated by all navigators, but I must confess that it disappointed me. The entire outline of the island was visible for too short a time, and at too great distance to permit its boasted features to be distinctly seen. Upon a second and nearer view, its jagged peaks and rugged inaccessible mountains were visible, but we looked in vain for the verdant groves which are said by all writers to clothe it. These indeed exist, but are confined to a narrow belt of low land, lying between the mountains and the shore, and being unseen at a distance, the general aspect of the island is that of a land recently thrown up by volcanic action.

When, however, Tahiti is approached so near as to make separate objects visible, the contrast between it and the barren coast of Peru becomes striking. Even upon the steep surface of its cliffs, vegetation abounds; the belt of low land is covered with the tropical trees peculiar to Polynesia; while the high peaks and wall-faced mountains in the rear are covered with vines and creeping plants. This verdure is seen to rise from a quiet girdle of water, which is again surrounded by a line of breakers, dashing in snow-white foam on the encircling reefs of coral. Such objects are sufficient to form a beautiful landscape, and my disappointment probably arose in part from finding every thing more diminutive than I had been led to imagine from the highly-wrought descriptions I had been perusing only a few days before.

We were surrounded, even before we anchored, by canoes of all shapes and sizes, whose crews made a prodigious clamour. I at once interdicted any one who was not a chief from coming on board; but upon this being announced, every one claimed to be a chief of some description or other. Only the great chiefs, therefore, were admitted. These came off in whale-boats, which are now superseding the canoes, and brought with them trifling presents of fruit. It was soon found that

their errand was not one of mere ceremony, but was intended to solicit the washing of our dirty linen, a business which is among the prerogatives of the queen and chiefs. I was informed that the queen, being *enceinte*, was residing on the opposite side of the island, which would prevent her from paying us a visit. I was, therefore, at liberty to choose a less distinguished laundress, and spared the pain of resisting her royal solicitations for soap, an article much needed and in great request at Tahiti.

I was glad when the night closed in, to be rid of our numerous visitors. The pilot, who goes by the name of "English Jim," was equally so, for he chose to be considered as the only privileged person, and, besides, was looking somewhat to his own profit in the line of clothes-washing, a business which the presence of the chiefs threatened to interfere with. Jim is quite a respectable-looking man, dresses in the European fashion, and speaks English, which he has acquired on board of whale-ships, tolerably well. Although a good pilot, so far as a knowledge of the shoals go, he does not understand what to do with a vessel in case of difficulty. He told me that he had been looking out for vessels for some days, for it had thundered.

The two peninsulas, if they may be so termed, of which the island of Tahiti is made up, are of very different characters. The smaller one, called Tairaboo, and usually spoken of as "the small island," is said to be the most fertile: it possesses some harbours, but they are little better known than they were half a century ago. Both peninsulas possess twenty-four harbours, including the good and bad. Tahiti Proper contains the best, and therefore engrosses all the commerce. It has in consequence been for many years the seat of government.

The whole island is of volcanic formation, but there is no longer any active igneous action, nor is

there any well-defined crater to be seen. Coral reefs, with occasional openings, are attached to the shores, and the larger island (Tahiti) has also a sea reef. Between the two reefs is an almost continuous channel for boat navigation, and on the northern side they enclose many safe and commodious harbours for shipping. On this side also vessels may pass from harbour to harbour, within the outer reef. This reef varies in breadth from a few yards to fifty, or even a hundred. The shore that adjoins the coral reef is formed of black volcanic sand, occasionally mixed with comminuted shells, which give it a grayish hue. Basaltic ridges reach the sea at intervals, and form projecting points of moderate elevation.

An observatory was established at Point Venus, and furnished with both astronomic and magnetic instruments; and as soon as the repairs of the vessels had made such progress as to permit it, parties were formed for the survey of the four principal harbours and the channels between them. These harbours, Matavai, Papaea, Toanoa, and Papieti, are so important to the many whale-ships which visit this island, that I felt it an imperative duty to obtain accurate charts of them all. At the same time, a large party of officers and naturalists was ordered to cross the island, to reach, if possible, Orohena, one of the highest peaks, and to visit Lake Waihera.

I had been in hopes of obtaining a full series of moon culminating stars on Point Venus; but I was disappointed, for it rained almost every night. I was, therefore, compelled to rely for the longitude on the chronometers alone, and restricted even in that method to observations of the sun. I was, however, well pleased to find that my results differed from the best preceding authorities no more than $1' 33''$ of space. These authorities give $149^{\circ} 29' 43''$ W. for the longitude of Point Venus.

The mountains were obscured by clouds during the whole time of my stay, and no angles could be taken for the measurement of their heights, nor could the party I detached for the purpose reach their summits; but the Peacock remained for some days after my departure, and Captain Hudson, with his officers, succeeded in measuring the height of Aorai, the peak which is next in height to Orohena. This he found to be six thousand nine hundred and seventy-nine feet; and as Orohena appeared to be about one thousand five hundred feet higher, the height of the latter peak may be set down as about eight thousand five hundred feet above the level of the sea. From these two peaks, ridges diverge to all parts of the coast, throwing off spurs as they descend. These ridges are precipitous, and for the most part narrow. In many instances their summit is a mere edge, making walking upon them not only dangerous, but often impossible.

The governor of the district of Matavai, Taa, was the first acquaintance of any distinction that we made. He had already visited the Vincennes on her anchoring. He is a fine-looking man, of huge proportions, and has a large establishment near Point Venus, where he monopolized nearly all the washing, which was performed by his numerous dependants. By this business he derives some remuneration for the cost of feeding and clothing them, putting the gains of their labour into his own

pocket. Such, at least, is his own account of the transaction.

Taa's usual dress was a striped cotton shirt, nankeen pantaloons that had once been yellow, and a round jacket of blue cloth. Both shirt and pantaloons were too tight, and he had neither suspenders nor stockings, although he wore shoes. In this guise he had an awkward look, which he probably would not have exhibited in a native costume.

He was profuse in offers of hospitality at his own house, and many of the officers were induced to accept his invitations. His entertainments appear to have been of the same general character with that to which I was treated, and which will, therefore, serve as a specimen of the mode in which such things are done by the "good society" of Tahiti.

We reached his dwelling in time to see the preparations for the feast. These were entrusted to his man of all work, Stephen, or, as he called him, "Stiffin." This useful personage exhibited his dexterity, not only in cooking, but in killing the poultry. The bird selected was a cock, for the Tahitians well understand the difference in value between it and the hens; and Stephen exhibited much adroitness in the slaying, plucking, and dressing. While this was going on, the stones for the Tahitian oven, so often described by voyagers, were heating, and when they had acquired the proper temperature, the ashes were carefully swept off,—bread-fruit, taro, and plantains, wrapped in leaves, were then laid on the stones, with the fowl in the centre, and the whole covered up. In about an hour the oven was carefully opened, the contents exposed, and found to be thoroughly cooked. The dinner was then served in an earthen dish, with a knife and fork, when, although the fowl was somewhat tough, it was greatly relished. The dinner hour was one o'clock.

Taa, according to the universal opinion of the squadron, did not improve upon a closer acquaintance. His intrusive and greedy disposition, not to mention his fondness for the bottle, rendered him daily a less welcome visitor than at first. I must, however, do him the justice to say, that if he were wanting in other traits of character that ought to distinguish a chief, he did the honours of his house admirably, and that he must be seen in the capacity of a host, if a favourable opinion is to be formed of his character.

On the invitation of the Rev. Mr. Wilson, I visited him at the mission-house, and was kindly received. This gentleman is seventy-two years of age, and is the oldest missionary on the island. In spite of his advanced age, he still performs all the duties of his cure. The church and the parsonage are both frame houses. The former, which is neatly built, is capable of containing a large congregation. The Sabbath occurred on Saturday, by our reckoning, and all labour was suspended. I thought the attendance on worship small, compared with what I had been led to anticipate. There were less than two hundred persons present, and they did not appear to be as attentive as they had been represented. The women were more numerous than the other sex, and were dressed in a most unbecoming manner. They wore high flaring chip bonnets of their own manufacture, loose gay-coloured silk frocks, with showy ker-

chiefs tied around their necks. Nothing can appear more *outré* than they do in these habiliments, and I was at a loss to conceive how they could, in particular, have been induced to adopt a covering for the head, which affords no protection from the sun, and is in consequence so ill-adapted to the climate.

A Tahitian changes his residence without difficulty or inconvenience; food is every where to be had in abundance, and lodgings never enter into his calculation. While the squadron was at Matavai Bay, the number of those who appeared to inhabit its shores would have given a very erroneous estimate of the usual population. They were assembled from every part of the island, and the right of occupying each spare nook in the houses of the permanent settlers seems to be universally admitted. When this resource fails, they are to be seen beneath trees, or upon the beach, within a few feet of the water's edge, sleeping as soundly, although without any covering, as if they were beneath their own roofs.

In our whole intercourse with the inhabitants of Tahiti, we did not hear of a single act of theft, although there were innumerable opportunities for its commission, without the possibility of immediate detection. They seemed always in a good humour, gay, happy, and cheerful; nor did I witness a single quarrel among all the crowds that were assembled at Point Venus, during our stay. They are, however, inveterate beggars.

At the invitation of Mr. Pritchard, I visited the school under his direction at Papieti. This gentleman was, a few years since, a missionary, but now holds the station of Her Britannic Majesty's consul. He has not, however, abandoned all his missionary duties.

The school is held in the church, a large frame building, much like a New England meeting-house. It has numerous windows, a large gallery, and pews capable of containing a great number of people. All who were present were well dressed, and the assemblage, except from the colour of their skins, could have been, with difficulty, distinguished from a Sunday school in the United States.

The exhibition of the schools did not surprise me so much as the fact that few natives are to be met with who cannot both read and write. This was not confined to the younger part of the population, but was true even of those advanced in years. I also learned that they had schools among themselves, and that parents were well aware of the advantages attendant on sending their children to them. In these schools great pains are taken to inculcate cleanly and industrious habits, with sound moral and religious principles.

The hours of attendance are confined to the forenoon, and during these the schools are crowded. The parents are unwilling that their children should be confined for a longer time.

Our consul, Mr. Blackler, had made complaints to me, as soon as I arrived, of the conduct of the queen and government, and asked my interference. The charges consisted in the following items:

1. The seizure of an American whale-boat and ill-treatment of the crew.

2. That fines had been unjustly imposed on American seamen.

3. The refusal to apprehend deserters from

American ships, or to provide a place for their safe keeping.

4. The evasion of a promise to provide a place for the transaction of the consular business.

In consequence of these complaints, I had immediately requested that a council of the chiefs might be held, and the 17th September was appointed for the purpose. On this day I ordered all the officers that could be spared from the vessels to attend. Captain Hudson and myself set out at an early hour, accompanied by several boats. We passed down through the reefs, and reached Papieti at ten o'clock, where we were joined by our consul, and in his company proceeded to the building which has been mentioned as the scene of the exhibition of the schools. Here we were received by Mr. Pritchard, who politely showed us to the seats we were to occupy. He then called the names of the chiefs, and each answering in his turn, took his seat on the side of the building opposite to us.

The meeting being ready for business, I read from a paper a list of the grievances complained of. This was translated sentence by sentence by a Mr. Darling. When I had finished, Paofai a chief, who holds the office of chief judge, appeared to make a reply. He began by apologizing for the absence of the queen, caused by her approaching confinement, and then requested a copy of the paper which had been read, in order that it might be considered and answered. He stated that it included too many points to be decided upon and answered at once, but promised that the matter should be examined, and the business concluded as speedily as possible.

This request was so reasonable that I at once assented to it. I thought the proposed mode far better, and it was more agreeable to me than a public discussion would have been, in which confusion could hardly be avoided. I therefore broke up the meeting, after stating that I should look for a satisfactory reply on my coming in the Vincennes to Papieti.

Many of the chiefs seemed disposed to act correctly and do justice, at least they repeatedly expressed their good intentions. It was also evident to me, that their minds were greatly relieved by the moderation of the demands, for they had feared that these were to be of some extraordinary kind, and might perhaps include a claim for heavy damages. Indeed, since the large contribution levied on this island by the French, the government has entertained apprehensions, and dreads the arrival of men-of-war. These fears are taken advantage of by many ill-disposed residents, who omit no opportunity to practise upon their alarms, and to threaten them with foreign interference.

Much complaint has been made of the influence which the missionaries, and Mr. Pritchard in particular, exercise over the government of Tahiti. They have, unquestionably, great influence; but I am satisfied that they are justly entitled to it. Indeed I cannot but consider it as part of their duty, nay, the great object of their mission, to acquire and exercise a salutary control over their converts, both of high and low degree. My own observations satisfied me that this control is exerted solely for the purpose of fulfilling the laudable object for which they were sent. It is possible that

their views of the proper method of instructing an ignorant people are not at all times, or in every respect, the most enlightened; but no one can with propriety question their pious zeal, or the honesty of their intentions. We may perhaps lament their intolerance towards other sects, but no one can visit the island without perceiving on every side the most positive evidence of the great benefits they have already bestowed, and are daily conferring upon the inhabitants.

All this good has been done in the face of many and great difficulties. The most serious of these is the evil influence of a large portion of the other foreign residents. Although among these are some who are truly respectable, the majority is made up of runaways from the English convict settlements, and deserters from vessels. These men, the outcasts and refuse of every maritime nation, are addicted to every description of vice, and would be a pest even in a civilized community. It may easily be conceived what an injurious influence such a band of vagabonds, without trade or occupation by which they can support themselves, guilty of every species of profanity and crime, must exert upon the morals of the natives, and what a barrier they must oppose to their improvement in morals and religion.

Tahiti, when first visited, was proverbial for its licentiousness, and it would be asking too much, to require that after so short an enjoyment of the means of instruction, and in the face of such obstacles, its inhabitants should as a body have become patterns of good morals. Licentiousness does still exist among them, but the foreign residents and visitors are in a great degree the cause of its continuance, and an unbridled intercourse with them serves to perpetuate it. Severe laws have been enacted, but they cannot be put in force in cases where one of the parties is a foreigner. I see no reason, however, why this island should be pointed out as conspicuous for licentiousness. When compared with many parts of the world that arrogate a superior civilization, it appears almost in an advantageous light. Vice, at any rate, does not stalk abroad in the open day, as it did in some places we had lately visited upon the American continent. It would be unfair to judge of these natives, before they had received instruction, by our rules of propriety; and now many of those who bear testimony to the laxity of their morals, visit their shores for the very purpose of enticing them into guilt, and of rioting without fear or hindrance in debauchery. Coming with such intentions, and finding themselves checked by the influence of the missionaries, they rail against them because they have put an end to the obscene dances and games of the natives, and procured the enactment of laws forbidding illicit intercourse.

The missionaries are far from overrating their own success in effecting an improvement in morals, and inculcating the obligations of religion. So far from this, I found that they generally complained that sincere piety was rarely to be found among the natives. However this may be, the external signs of moral and religious improvement are conspicuous. Many of the natives are scrupulous in their attention to Christian duties, and members in communion of the church. All are strict observers of the Sabbath; indeed, nowhere is its institution more religiously attended to than in

those Polynesian islands which are under missionary influence. On that day no canoe is launched upon the waters, and no person is seen abroad except while on his way to or return from church. When thus seen, they are neatly and decently clothed, although in very bad taste. At church they form a respectable-looking congregation, and listen with attention to the preacher.

The success of the missionaries in introducing this strict observance of a Sabbath is ascribed by themselves in a great degree to its analogy to the taboo-days of heathen times, and the continuance of its sanctity is now insured by the penalties which await an infraction of it. The punishment for Sabbath-breaking consists in the offender being compelled to make a certain number of fathoms of road, and upon a repetition of the offence, the number of fathoms is much increased.

Although much has been done for the improvement of the natives, still it appears evident that much more might have been done if the missionaries had not confined themselves so exclusively to teaching from the Scriptures. The natives, by all accounts, are extremely fond of story-telling, and marvellous tales of their ancestors and ancient gods are even now a source of amusement. The missionaries, as I am told, possess much information in relation to the history and mythology of the island, embodied in the superstitious tales still occasionally current among its inhabitants. It is to be hoped that they will preserve a record of these, before they are obliterated by their exertions to destroy the ancient superstition. But they would have succeeded sooner in eradicating the practice of reciting these legends, had they provided a substitute in works of fiction, inculcating moral and religious lessons, or teaching useful knowledge. So also, while it was indispensable to put down those amusements which were the means or incentives to debauchery, this measure ought to have been accompanied by the introduction of innocent modes of recreation. For want of the first resource, much time is now spent in unmeaning gossip, and the necessity for the other is often shown in a listless idleness.

No attempt has been made by the missionaries to introduce the mechanic arts, or improvements in agriculture, yet it cannot be doubted, that to have taught them even the simplest of these, would have materially aided the progress of civilization, and reacted favourably upon that of religion. The failure of a cotton manufactory, with expensive machinery, which was erected on the island of Eimeo, affords no argument against the probable success of less complex arts. The natives were not prepared to pass at once from habits of desultory exertion to the regular and stated occupation of the mill. But the spinning-wheel, the handloom, and the plough, would not have required such a decided change in the number of hours of labour, and would have served as a preparation for more continuous industry. The two former implements have at length been introduced by other hands, and have already been adopted with eagerness by some of the natives.

The change of dress which has been introduced by the missionaries and other foreigners, has, on the contrary, had an injurious effect on the industry of this people. While they wore their native tapa, the fabric, though of little value, gave employment

to numbers of women; and this change of dress, intended as an advance in civilization, has had the effect of superseding employments which formerly engaged their attention, and occupied their time. The idleness hence arising, and the artificial wants thus created, have no little influence in perpetuating licentiousness among the females, to whom foreign finery is a great temptation. The European dress, at least as worn by them, is neither as becoming, nor as well adapted to the climate as that which it has almost superseded. Many of the missionaries now see these things in their true light, and informed me that they were endeavouring to pursue a more enlightened course.

My experience warrants me in saying that the natives of Tahiti are honest, well-behaved, and obliging; that no drunkenness or rioting is to be seen, except when provoked by their white visitors and inmates, and that they are obedient to the laws and to their rulers. That they should be comparatively indolent is natural, in a climate where the fruits of the earth almost spontaneously supply the wants of nature, and where a mere animal existence may be maintained without labour. No people is, in truth, so independent of the aid even of their fellows as the Tahitians. A native may in the morning be wholly destitute even of implements wherewith to work, and before nightfall he may be found clothed, lodged, and have all the necessities of life around him in abundance. These he derives from the cocoa-nut, the poorou (hibiscus tiliaceus), banana, bread-fruit, and bamboo. That he does not find it necessary to call upon others for assistance, does not make him forget the duties of hospitality, but it does produce a thoughtlessness about his own wants, and takes away that incentive to labour, which is so powerful an aid in the promotion of civilization. Still, I am satisfied that the Tahitians do not avoid labour, when they can work with profit to themselves. Those who were employed on board the squadron, where their pay was liberal and regular, performed their tasks faithfully and well; and they bear the same character for fidelity in the whale-ships, on board of which they are much employed. Some of them are now engaged in the culture of the sugar-cane; and a single native plantation was mentioned to me, of which the preceding year's crop had amounted to five tons. Coffee has also been planted, and succeeds remarkably well. Much more, too, would have been done in these productions had their industry been encouraged by the missionaries, as a body; but, while some of them have done their utmost to stimulate the natives to exertion, others have altogether discountenanced any attempts to introduce new articles of culture.

One of the most important consequences of the introduction of civilization has been the establishment of a settled constitution. This was framed by the missionaries in 1823, upon the model of that of England, and was revised in 1826. The royal authority includes the power of the veto, the nomination of the supreme judges, and of all officers connected with the person of the sovereign. The crown is hereditary, descending either to males or females. The legislative power is lodged in an assembly, composed of two members from each district, chosen triennially by the people. This assembly is convened annually for the purpose of remodelling existing laws, or enacting new ones.

It has also semi-annual meetings, and may be convened more frequently, if necessary, for the discussion of questions of importance. All enactments of the legislature, before they become laws, are laid before the queen for her approbation and signature. When this is affixed, they are carried into effect by the judges and the officers of the crown. Should she refuse her signature, they are revised and remodified, or laid aside altogether.

The island is divided into seven districts, each of which has an inferior court for the trial of ordinary cases. This consists of two judges, who are not unfrequently also members of the legislature. The decision of these courts must be founded upon evidence, and appeal lies to the supreme tribunal.

This supreme court is composed of seven judges, two of whom are residents of the island of Eimeo. The judges are also executive officers, and nearly all are chiefs. This double capacity gives them great influence, and their power is sufficient to supply, in part, the queen's want of energy, but at the same time serves as a check against any encroachment upon the prerogatives of the sovereign.

The powers of this court even extend to an impeachment of the royal ruler.

The mode of trial, both of civil and criminal cases, is by a jury, and free argument is allowed. The testimony is not given upon oath, but the penalty for giving false evidence is severe. The jury is composed of six persons; and every one has the right of being tried by his peers.

The reigning queen is named Aimata, but is more usually known as Pomare IV. She is the sister of the late king, and grand-daughter to that Pomare I. who acquired the sovereignty of Tahiti soon after its discovery. She is now (1839) about twenty-seven years of age, and has been twice married: the first time to Pomare, a young chief of Tahaa, from whom she was divorced; the second, to a young chief of the island of Huahine, by whom she has one son, the heir of the throne. The general appellation he goes by is Pomare *taue*, equivalent to king-consort.

Next in rank to the queen is her aunt, Ariapaca, the eldest sister of her mother, and at one time queen-regent. She still possesses great influence.

In case of failure of the queen's posterity, the next heirs to the throne are the princesses Ninito and Taii, who are the queen's cousins, and nieces to Pomare II.

Uata, the godfather of the queen, although not a chief by birth, has from this connexion obtained great influence in the queen's councils, and may be termed prime minister.

The seven judges of the supreme tribunal are nominated by the queen, but the nomination must be confirmed by the legislature. Those who at present hold the office are all large landholders, and men of the highest character and intelligence to be found in the population. They are in fact the rulers of the kingdom. Five of them, viz. Paofai, Mare, Utami, Taati, and Tanoni, reside on the island of Tahiti; the other two, Ruetone and Mahine, at Eimeo.

In spite of the small extent of the kingdom, it is not without subjects to distract its councils. There are two distinct parties: the one led by the queen and the missionaries; the other, by some of the

chiefs. The leaders of the latter are Paofai, Hitoti, and Tana, who are descended from the ancient kings dethroned by Pomare I. These chiefs have large domains, and many of the raatiras (landholders) take part with them. They are, besides, distinguished by qualities which give them consideration among the islanders. Paofai, who has more than once been spoken of, holds the office of chief judge, and is considered as the best statesman on the island. Hitoti is distinguished for a dignity, uprightness, and good sense, which command universal respect. Tana possesses a high reputation as a brave and skilful warrior.

Of these three leaders, Hitoti alone is wholly free from reproach. Paofai is accused of covetousness, and a propensity to intrigue; and Tana, of a fondness for intoxicating drinks.

The queen, however, contrives to rule in all matters that rightfully belong to her; and, by the aid of the missionaries, maintains her ground against this strong opposition, although its leaders have generally the power to determine the course of policy to be pursued, and entire authority over the execution of the laws. They are much opposed to foreigners, and have made several attempts to have them banished from the island. They are supposed to entertain the design of setting aside the queen, on account of her irregular behaviour and vices; but this plan is not likely to succeed, because of the personal popularity she enjoys, and the number of adherents she possesses among the people. In conformity with such a design, these chiefs are said to be continually watching for opportunities to increase their own power and diminish the royal authority. Among the occasions of which they endeavoured to avail themselves, was the celebrated affair of the Roman Catholic priests, the circumstances of which, as nearly as I could learn from the statements of both parties, are as follows:—

Two priests of this denomination, who had been stationed at the Manga Reva, or Gambier Group, landed on the southern side of the island, and travelled towards Papieti, preaching the doctrines of their church. They, however, found none willing to listen, and it is said, that no native would receive them into his house. On their arrival at Papieti, however, Paofai, Hitoti, and some other chiefs, gave them countenance, and they were hospitably received by Mr. Morenhout, the acting American consul, who, however, did not lodge them under his own roof, but in an adjacent building. The people, however, excited by the preaching of the English missionaries, broke into the building, and compelled the priests to embark on board a small vessel, which carried them to Uea, or Wallis Island, about two thousand miles to the west of Tahiti.

In considering this question calmly, and stripping it of the exaggerations with which both parties have loaded it, it is difficult to say which was most in the wrong. The Protestant religion was established by law upon the island, to the exclusion of all others, and this the priests well knew; nor can any but zealots, who think that those whom they style heretics are worse than infidels, excuse their intrusion upon missionary ground already fully and successfully occupied. On the other hand, their precipitate expulsion, under circumstances of great hardship, exhibited an unchristian spirit, for which the resident missionaries may justly be held responsible, as they unquestionably

had it in their power to prevent any positive ill treatment on the part of the natives.

The consequences of this expulsion of the priests remain to be related. In due course of time the French frigate *Venus*, commanded by M. Du Petit Thouars, arrived at the island, and anchored in the harbour of Papieti. The commander immediately demanded satisfaction for the outrage committed on his countrymen the priests, and threatened that unless two thousand dollars were paid him within twenty-four hours, he would fire upon and burn the town of Papieti. The queen had no money, and was inclined, as I was told, to let the French do their worst; but as in this case the loss would have fallen wholly on the foreign residents, the required sum was collected from them by Mr. Pritchard, and paid to M. Du Petit Thouars. A treaty was also forced upon the government, allowing all Frenchmen to visit the island freely, to erect churches, and to practise their religion. Thus the local laws were abrogated under the threats of an irresistible force, and the national independence virtually surrendered.

This was a high-handed measure on the part of the French commander, and one that hardly admits of justification, particularly the demand for money; for he had himself been received with great hospitality, and not long before another of his sovereign's frigates, the *Artemise* (I think), had been saved from wreck by the unrecompensed exertions of the Tahitians. The amount demanded also was at least four times as great as the pecuniary damage incurred by the priests would be reasonably valued at. The French commander, therefore, appears, in thus bullying a defenceless people into the payment of an exorbitant indemnity, and into a relinquishment of the right of admitting or excluding foreigners and strange religious creeds, by municipal regulation, in a light far from advantageous.

We have seen that Paofai and his party at first countenanced the French priests. This they no doubt did in the hope of introducing an influence which might be opposed to that of the English missionaries. Subsequently to these transactions, and after an attempt by two foreigners to murder Mrs. Morenhout, they have endeavoured to obtain the passage of a law for the expulsion of all foreigners whatsoever.

The aversion to the permanent residence of foreigners is general, and although there is no law forbidding the sale of land to them, yet no offers have hitherto been found sufficient to induce the chiefs to dispose of any portion of their soil. They find in its possession an acknowledged right to rank and respectability, and it spontaneously yields them and their followers the means of subsistence. So powerful is this repugnance to the admission of foreigners to any of the privileges arising from a possession of land, that those who are attempting to cultivate sugar, &c., hold their leases by so uncertain a tenure as to prevent their making any permanent improvement.

The fertile portion of the island of Tahiti lies in the valleys, which are of small extent, and in the plain which extends from the sea-shore to the spurs of the mountains. These produce tropical plants in great abundance and luxuriance, and are probably not exceeded in fertility by any portion of the earth's surface. The climate of this region is

warm but not enervating, and is well adapted for the enjoyment of all the pleasures of life. To this climate the habits and pursuits of the natives are well adapted, or rather they are its necessary results. Their disposition leads them to the quiet enjoyment of the beautiful scenes around them. Their cottages are to be found in retired and lovely spots, and are usually surrounded by neatly-fenced enclosures. In these, which are often of considerable extent, are to be seen growing the bread-fruit, vi-apple, and orange, and sometimes extensive groves of tall cocoa-nut trees. In one corner are the patches of taro and sweet-potatoes.

The cottages are of an oval form, usually about fifty or sixty feet in length, and twenty in breadth. The walls are formed of bamboos set in the ground, with intervals of about an inch between them, for the admission of light and air. To the top of these is a plate-piece of the hibiscus, a light and strong wood, is lashed with sinnet. From this the rafters rise on all sides, and meet in a ridge, which is about half the length of the building. The rafters touch each other, and are covered with small mats made of the pandanus leaf. These are closely fitted together, and lapped over each other, forming an impervious and durable roof. The floor is the natural earth; there are no partitions, but tapa or matting is employed as an occasional screen. A building of this description may be erected for about fifty dollars.

The Tahitians use neither tables nor chairs. Their bedsteads are formed of a framework of cane, raised a short distance from the ground, upon which a few mats are laid. A pillow stuffed with aromatic herbs is in general use among the better class.

I hesitate to speak of the females of this island, for I differ from all who have gone before me in relation to their vaunted beauty. I did not see among them a single woman whom I could call handsome. They have, indeed, a soft sleepiness about the eyes, which may be fascinating to some, but I should rather ascribe the celebrity their charms have obtained among navigators, to their cheerfulness and gaiety. Their figures are bad, and the greater part of them are parrot-toed. They are exceedingly prone to prattling, or may rather be said to have a tattling disposition, for they cannot keep even their own secrets.

I have spoken of the incongruous character of the dress of the females. Among the men this is not as strongly marked as it is said formerly to have been, and they are no longer content with cast-off clothing. Those who can obtain it are dressed in sailors' garb: others wear around their bodies a wrapper called pareu, which extends to the calf of the leg. This is now usually made of blue cotton cloth, and with it some wear a cotton shirt of gaudy colours. Others luxuriate in a pair of duck trousers, and carry the pareu upon their shoulders.

The appearance of the dress of the women while at church, has already been spoken of. On ordinary occasions, they wear the pareu alone, but when dressed, put over it a loose dress, resembling a night-gown, buttoned at the wrists, and confined in no other place. Relics of their ancient dress may still occasionally be seen in wreaths of flowers around the head, and in the hair. The *hau* is a sort of rim made of pandanus, and when it has flowers

beneath, it gives a pleasing and rural look to the women, to whom it also affords a convenient and easily-procured protection from the sun. The wreaths are usually composed of the Cape jasmine and *rosa sinensis*, the latter of which is often stuck through the lobes of their ears, and in their glossy black hair.

The natives of both sexes seem passionately fond of flowers, but the use of these in dress has been discouraged by their teachers, who have taught them that such vanities are unbecoming to Christians. I am at a loss to understand why so innocent a pleasure should not have been encouraged rather than discountenanced. In conformity with this opinion, the absence of flowers around the missionaries' dwellings is universal, and cannot fail to be remarked in a climate where the plants most admired in their own country, as exotics, are of almost spontaneous growth.

Cooking and eating occupy but a small portion of their time. Their food consists principally of bread-fruit, taro, banana, vi-apple (*spondias*), oranges, cocoa-nuts, sugar-cane, fowls, and fish. They eat no salt, but employ instead of it a sort of sop, made of sea-water, cocoa-nut milk, and the root of the ti. Their mode of eating is somewhat disagreeable, for the bread-fruit or taro is dipped in the sop, and then sucked into the mouth with a smacking sound, that may be heard at some distance. The vessel most commonly used is a cocoa-nut shell. The children are fed upon poe, which is made of bread-fruit and taro, pounded together with a little sugar. The child is laid on its back, and is crammed with balls of poe of the size of a walnut, at which it shows its delight by flapping its arms, kicking, and chirping like a young bird.

The men of Tahiti care little about music, but the women appear to be passionately fond of it, and have very correct ears. Many of them have rich contralto voices, and can descend to very low notes, while others do not differ in this respect from the females of our own country; occasionally one may be found that can sound exceedingly clear and very high notes. Their voices accord well with each other, and a party of four or five will make excellent harmony.

If they ever had any native music, it has long been forgotten, and no other singing is now heard but hymns and sailors' songs; you observe, however, a peculiar nasal sound, particularly in those who indulge in the latter class of singing.

The party despatched for the purpose of making an attempt to reach the top of Orohena, consisted of fifteen persons, including four natives as guides, and an American of the name of Lewis Sacket, as interpreter. This man was from the state of New York, and was admirably qualified for his duties.

By the advice of the Rev. Mr. Wilson, the party took the route across the island which follows the Pappino valley. The distance on this line, to Lake Waihera, is no more than twenty-five miles, while by that which follows the shores, it is fifty miles before the point at which the ascent begins is reached. None of the guides were acquainted with this route, and it was therefore necessary to find a person who was. For this purpose they in the first place proceeded towards the eastward from Matavai, for about five miles, to the mouth of the river Pappino, which they reached about

2 P.M. Here they found a guide, and were informed that the stream was much swollen: they however determined to go forward, and were accompanied by a troop of boys and girls with flowers. Before they had proceeded far, they reached a place where it was necessary to ford the stream, which they found difficult on account of the rapidity, although the water was only three feet deep. Other fords of the same description occurred every few rods, until they at last reached one in which the water reached to their necks. This was of course dangerous to those who could not swim, but all crossed in safety. A young native, as if in derision of the difficulty which they appeared to experience, and of their effeminate bringing up, dashed into the flood, and was seen plunging down the rapids in sport, and evidently with great enjoyment, although frequently wholly immersed in the foam.

When they reached the edge of the lake, their guides constructed a hut, in which they passed the night. The next day Lieutenant Emmons made a survey of the lake, and sounded its depth from a raft. It was found to be half a mile in length, a third of a mile in breadth, and in shape nearly oval. The depth in the middle was ninety-six feet, whence it gradually decreases to the edge. It had rained the whole of the preceding night, and the lake was observed to rise about five feet in twenty hours. As far as could be discovered, it has no outlet; but the natives assert that if a bread-fruit be thrown into the water, it will make its appearance at a spring, which gushes from the hill-side, about two miles north of Ooaigarra, and

near the sea. The height of the surface of the lake, measured by the sympiesometer, is about one thousand seven hundred feet above the level of the sea.

Most of the vessels that visit Tahiti are those belonging to our whaling fleet: these average less than a hundred annually. From them the natives are enabled to dispose of some of the supplies they raise, and in return obtain such articles as will promote their comfort and add to their pleasure. The whale-ships, for the most part, have articles of trade which they barter with the natives, so that little money is required to carry on their business. The natives, particularly the chiefs, are however well acquainted with the value of money.

The few other vessels that visit the islands bring little cargo; if two arrive at the same time they destroy each other's ventures by glutting the market.

The pearl-shell fishery of the Paumotu Group centres here. I was told it was principally in the hands of the French consul. For few years before our arrival, viz. from 1832 to 1838, it had been very productive. The amount obtained was about nine hundred tons, which was estimated to be valued at 45,000 to 50,000 dollars; the greater part of this was sent to France. Of the agricultural products they have little to dispose of as yet; neither is the island susceptible of any very extended operations, to induce vessels to visit it exclusively for its trade or productions. The three chief articles of production are sugar, cocoa-nut oil, and arrow-root.

CHAPTER XII.

TAHITI AND EIMEO.

THE PORPOISE SAILS FOR THE SAMOAN OR NAVIGATOR'S GROUP—APPLICATION FROM "JIM" THE PILOT—THE VINCENNES PROCEEDS TO PAPIETI—INTERVIEW WITH THE CHIEFS—GENERAL FREYRE—HITOTI, A NATIVE CHIEF—GEOLOGICAL STRUCTURE OF TAHITI—VILLAGE AND BAY OF PAPIETI—COMMERCE OF PAPIETI—POPULATION OF TAHITI—DISEASES—CRIMINAL TRIAL—CULTIVATION—USEFUL PLANTS—ASCENT OF MOUNT AORAI—ABSENCE OF FOSSILS ON TAHITIAN MOUNTAINS—MANUFACTURES OF TAHITI—REMARKS ON THE CONDUCT OF FOREIGN VISITORS—SALE OF ARDENT SPIRITS—THEATRICALS BY THE CREW OF THE PEACOCK—VINCENNES SAILS FOR EIMEO—RESIDENCE OF MR. SIMPSON AT EIMEO—SCHOOL FOR THE CHILDREN OF MISSIONARIES—CHARACTER OF THE NATIVES—SUPPLIES TO BE PROCURED THERE—VILLAGES—SUGAR PLANTATIONS—VON SCHANTZ'S CHART OF TALOO HARBOUR—CONCLUSION.

The Porpoise, having been refitted, was sent to sea on the 20th September, 1839, for the purpose of again visiting the west end of Nairsa or Dean's Island, with Krusenstern's and Lazareff. She was also ordered to pass over the supposed locality of Recreation Island, and then to meet the Vincennes at Rose Island, the easternmost of the Samoan or Navigator's Group.

A stormy evening having occurred previous to our leaving Matavai Bay, "Jim," the pilot, desired to see me; on his coming into the cabin, to my great amusement, he urged me to allow him to go to Papieti, where he was sure he would be wanted; and when I asked for what purpose, he told me that the "thunder and lightning would bring in ships of war." He was displeased when I laughed

and said, that as he was engaged on board my ship, I would wait until I saw the ships before I could give him permission. He then reminded me of the night before we arrived, when there was plenty of thunder and lightning, and that he had told me as soon as he came on board that he expected us. He went on to repeat that he was sure that they would want him early in the morning at Papieti, but I persisted in my refusal; and in the morning he appeared much disconcerted to find that there was nothing in sight out of which he could make a ship of war.

The Vincennes moved to the harbour of Papieti on the 22nd September. At the same time, orders were given to the Peacock and Flying-Fish to take on board their articles from Point Venus,

and to follow as soon as they had done so. The tender required some repairs, which could be done with more safety at Papieti. Both vessels joined us in that harbour on the 24th.

In proceeding to Papieti, we left Matavai Bay in the morning, and within a few hours had anchored in the harbour of the former place. No soundings are to be had beyond the line of reefs, and consequently there is no anchorage; the outer wall of the reef surrounding the island is in fact perpendicular, with the exception of some projecting patches in Matavai Bay, and to the eastward of Point Venus. On the latter the French frigate *Artemise* struck, in 1836.

At the season of the year when we made this short passage, there is some danger to be apprehended in entering the harbour of Papieti, and much caution is therefore necessary. The trades at this season are irregular, and the winds which prevail are light; they also are most apt to fail at the critical moment when the vessel is at the entrance of the narrow passage through the reefs, in which case the current, which rushes strongly out and sometimes across the passage, may cause the vessel to drift upon the western reef. The proper mode of guarding against this, is to keep the vessel as close as possible to the eastern reef.

The purpose of my visit to Papieti had originally been to go through the ceremony of receiving the great chiefs on board, when, according to custom, presents are made them; but before this was done, I determined that the business, which I had laid before the council, as stated in the preceding chapter, should be adjusted. This was done satisfactorily on the 22nd, when they assented to all that had been asked of them. I am convinced that their conduct in this matter was dictated throughout by a sense of what is right, and am satisfied that if grievances do exist, it is only necessary to state them, when, if redress is within their power, it will be granted.

Agreeably to my invitation, Uata, who appeared as the representative of the queen, the two princesses, Ninito and Taii, and all the head chiefs, visited the ship, accompanied by the foreign consuls. The ship was dressed for the occasion with flags, and they were received with every mark of respect. Luncheon was prepared for them; and when they were all seated at it, it struck me that I had never seen such a collection of corpulent persons. Previous to eating, one of the oldest chiefs said grace. Their appetites were good; none of the food appeared to come amiss. They seemed heartily to enjoy themselves, and conducted themselves with a propriety that surprised us all. They were cautious in partaking of the wine which was set before them, and seemed evidently upon their good behaviour. This was the case with the high chiefs, who, to the number of about fifteen, had been invited; but, besides these, about an equal number of others contrived to get on board without invitation; the latter thrust themselves forward with eagerness to occupy places at the table, but were compelled to give place to those of higher rank. A second table was, however, prepared for them, at which they took their seats, and did ample justice to what was set before them.

The variety of costume which was exhibited at this banquet was amusing. The princesses were

dressed in white frocks, shoes, and stockings, and chip bonnets, but looked awkwardly in them, and appeared more like boys in girls' clothes than women. Some of the men wore full suits,—coats, vests, and pantaloons,—of a variety of colours; others had sailors' round jackets; others again had only shirts and pantaloons, all too small, both in breadth and length. Some had black felt hats, of all possible fashions, and others wore them of straw; some had shoes on their feet, others had none.

Paofai's son attracted attention by his ridiculous appearance: he wore a red check shirt, light white pantaloons, that reached only half way down his legs, coarse shoes without stockings, and a short-skirted drummer's coat of blue, plentifully faced with scarlet. The latter was so small for him, that no force would make it button upon him. To finish all, he had a high-crowned conical felt hat stuck upon the top of his head.

After luncheon, they repaired to the deck, to receive the presents prepared for them. These I had been advised, in order to avoid unpleasant scenes, to pack in bundles, assorted to the rank of the parties. In spite of this precaution, much consultation took place among them, and a desire to exchange with one another was manifested. This was particularly the case with our old acquaintance Tana, and his friend Otoré, the ex-minister and former favourite of the queen. The presents for the queen and royal family were committed to the charge of Uata, who, as has been stated, appeared as the representative of her majesty.

Otoré, who has been just named, is only a petty chief, but had been the queen's favourite and minister, until he was dismissed in consequence of his frequent indulgence in intoxication. He is considered as the greatest orator on the island. He and Tana are boon companions, and were continually on board the vessels, where they so timed their visits that the hour of breakfast was sure to find them either actually seated at table or awaiting an invitation. Although at first welcome, the habitual intrusion of these and others upon the messes, finally became an annoyance, and on board the *Peacock* they had at last recourse to "clearing the ship of strangers" during meals. Tana did not mind this; and when we left Matavai, he was so kind as to remove to Papieti, in order to be near his friends.

Among other visitors on this occasion, I had the honour of the company of General Freyre, formerly president of Chili, who has chosen Tahiti as his residence. It gave me great pleasure to become acquainted with him, particularly as I had it in my power to give him recent news from his own country and Peru, which he was desirous of hearing! He spoke much of the deprivation he suffered by a separation from his family, and from the want of society, but uttered not a word of complaint against his enemies.

He lives in a small cottage on the bank of the harbour of Papieti, where he is highly respected; his manner and whole deportment are gentlemanly; he is tall and robust, with a florid complexion, and appears about fifty-five years of age. Although his political course may have been much condemned, I can bear testimony to the high estimation in which his private character is held in his native country.

On arriving at Tahiti, or indeed at any of the islands, respect is naturally due to the chiefs; this,

I am assured, was felt by us all ; but long before sailing we became disgusted with seeing these large and noble-looking men passing from ship to ship, even including Paofai himself, soliciting foul linen to wash, and performing other services that were not in keeping with their rank. There is one, however, whom I must do justice to,—Hitoti. He maintained the character given him by Captain Beechey. I was much pleased with his whole deportment on his visit to me, and also when I saw him at his own house ; he paid but two visits to the ship, and those within a day or two of our departure. That he did not visit the vessels before, was in order, as was supposed, to avoid the suspicion of trespassing on our liberality ; he refused to accept any presents, and would only drink wine when requested, performing all the little courtesies of the table with grace and politeness.

On his visit to the Peacock, Lieutenant Emmons and Mr. Hale being the only gentlemen on board, received him with the attentions due to his rank ; when taking leave, he requested to know their names, which were given to him in English orthography ; he at once took out his pencil, and with great readiness wrote them in the Tahitian dialect, as "Emaani" and "Helavi !"

The geological structure of the island is exclusively volcanic, and the rocks are either compact basalts, or conglomerates of basalt and tufa, although no active volcano exists, nor any well-defined crater, unless Lake Waiherea can be considered as one. Through these rocks olivine and pyroxene are copiously disseminated ; cellular lava was found in some places, but neither pumice nor obsidian ; quartz and mica were not observed, nor any carbonate of lime, except in the form of coral rock.

There is no conformity between the rocks of the centre of the island and those which in most places extend inwards for a few miles from the coast. The former are usually compact, of columnar structure, and exhibit no appearance of horizontal stratification ; the latter lie in horizontal layers, composed of scoriaceous and vesicular lava. In both of these structures singular twistings and contortions were observed. Many dikes were seen to occur, not only in the mountains, but near the sea-coast ; these were from three to six feet in width.

All the rocks of the island appear to be undergoing rapid decomposition. Even in places where the rock seemed to have retained its original form of sharp edges and pointed pinnacles, it was found so soft, to the depth of a foot or more, as to crumble in the hand. The earth thus formed varies in colour from that of Indian red to a light ochrey tint ; in consequence, many of the hills are of a red hue, and one immediately behind Papieti, takes its name (Red Hill) from this appearance.

This decomposed earthy matter, mixed with the abundant decayed vegetation of a tropical climate, forms, as may be readily imagined, a soil of the greatest fertility, adapted to every kind of cultivation. On the higher grounds the soil thus constituted has the character of a clay, and is in wet weather slippery and unctuous ; in lower positions it is mixed with lime derived from coral and shells, which often tends to augment its fertility.

Iron abounds throughout ; on the mountains to such an extent that compasses were found of little

use from the local attraction by which they were affected ; and on the shore, the sand was composed in part of iron, which could be separated by the magnet.

Water gushes out near the coast in copious springs, but none of them were found hot, nor were any warm springs reported to exist.

Papieti, in whose harbour we were now lying, is one of the largest villages on the island ; being the ordinary residence of the queen, and the abode of the foreign consuls. The foreign residents are also for the most part collected here. Among all its dwellings, the royal residence and the house of Mr. Pritchard are the only ones which possess the luxury of glazed windows. The houses of the foreigners are scattered along the beach, or built immediately behind it.

The bay of Papieti is the safest, and its port affords the greatest facilities for the repair and supply of vessels, of any belonging to the island. For the first purpose a wharf and warehouse have been constructed, which are let to those who wish to use them. We occupied them for ten days, for which we paid thirty dollars. The tender was hove out at the wharf, and her equipment secured in the warehouse. A limited supply of ships' stores and chandlery is kept for sale, and may also be purchased from the vessels which frequent the port.

The greater part of the commercial business of Tahiti is transacted here, whither the articles for export from other parts of the island are brought to be re-shipped. The number of vessels which visit this port annually is about sixty, of which the largest portion are whalers ; the remainder are transient merchantmen, or regular traders from New South Wales. The latter bring cotton fabrics, which they exchange for sugar, molasses, arrow-root, and cocoa-nut oil. The value of the exports in this direction is supposed to be about thirty-five thousand dollars.

The amount of American manufactured goods imported into the island is estimated at an equal sum ; they find their way here in transient ships from the coast of South America, and the supplies furnished our whale-ships are generally paid in American goods.

It is almost impossible, in the absence of all statistics, to arrive at any correct statement of the amount of foreign manufactures annually consumed here ; but the quantity is evidently on the increase.

By a regulation of the colonial government of New South Wales, Tahitian vessels are allowed to enter their ports on the same footing with the English. There are several vessels engaged in the trade, and others building.

The position of this island, in the vicinity of the cruising-ground of our whale-ships, and the resources it possesses for supplying shipping, make it a desirable point of rendezvous.

A census recently taken, gives for the population of Tahiti nine thousand, and for that of Eimeo one thousand. When this is compared with the estimates of the navigators who first visited these islands, an enormous decrease would appear to have taken place. The first estimates were, however, based on erroneous data, and were unquestionably far too high ; yet there is no doubt that the population has fallen off considerably in the interval. The decrease may be ascribed in part to

the remains of the old custom of infanticide, in part to new diseases introduced from abroad, and the evils entailed upon them by foreigners, and in part to the transition now going on from a savage to a civilized life.

Whatever may have been the case, during the first years after it was visited by Europeans, the population for the last thirty years has been nearly stationary; the births and deaths are now almost exactly in equal numbers. One of the oldest of the missionaries informed me, that although he saw much change in the character and habits of the people, he could perceive none in their apparent numbers.

Tahiti does not appear to be afflicted by many diseases. Some have been introduced by foreign ships, and among others, the venereal, from which the natives suffer much, being in possession of no method of arresting its ravages, and ignorant of the proper mode of treating it. In connexion with this subject, the want of a physician as a part of the missionary establishment struck me as an instance of neglect in its managers; and I was surprised to hear that the London Society did not employ any medical men. From this cause, not only are the natives deprived of the benefits which might so easily have been conferred upon them, but the missionaries themselves are compelled to pay, out of their private purses, for medical aid, when it can be procured. They are even at times wholly without a physician. This happened to be the case at the time of our arrival, when a medical practitioner who had formerly resided on the island had just taken his departure.

The effects of intoxication from ardent spirits and *ava* are said to have swept off many of the inhabitants. Secondary syphilis is in some cases severe, but their usual vegetable diet and simple mode of living, together with frequent ablutions, tend to mitigate this disease. Its continued prevalence, as well as the severity of some of the cases, are ascribable to the inordinate use of mercury, administered by a physician who was accustomed to distribute it in inordinate quantities among the affected, who were of course ignorant of its nature and consequences.

While lying at Papieti, we had an opportunity of seeing the manner in which justice is administered in criminal cases. The court was held in the council-house, an oblong building in the native style. The alleged crime was assault with intention of rape. The judges were seated on mats, having Paofai, their chief, a little in front of the rest; and the audience sat or stood around. The culprit was a petty chief, called Ta-ma-hau, a man of huge size, and apparently somewhat of a bully; he stood during the trial leaning against one end of the house, with an air of cool indifference. His accuser was a damsel not remarkable for personal beauty; she sat near the door among a number of other women. The witnesses were patiently heard, and the matter argued, after which the six judges severally gave their opinions and made remarks on the evidence, to which Paofai listened in an attentive and dignified manner, expressing, as occasion demanded, his assent or dissent. He then pronounced the verdict of the court, by which the prisoner was acquitted, but did not dismiss him without a brief and merited admonition. It appeared, that although not guilty of the crime alleged, he

had while intoxicated addressed indecent language to his accuser.

Cultivation has undergone a great change within a few years from the introduction of the guava, which has overrun the lower plain; the pasturage has not only suffered, but to its destructive effects are attributed many evils. Ten years prior to our visit, about which time the guava was introduced by the missionaries, the plain, from the sea to the base of the hills, was covered with verdure; and now it is overrun with an almost impenetrable thicket, before which all other vegetation disappears. I am inclined to think, that although this tree is now looked upon by the natives as a great curse, it will in time be beneficial to them, and cause them to become industrious, when they are obliged to get rid of it to make room for their sugar-cane, cotton, and indigo plantations; which products succeed remarkably well, can be raised at small cost, and will before many years be in great demand.

The cocoa-nut trees were also reported to have been decreasing, but our inquiries did not confirm this statement.

The manner of ascending the trees by the natives has been frequently described, but can scarcely be imagined until witnessed; the feat is performed by leaping without any cessation, even in climbing the highest tree; the body of the tree being rough or composed of rings, affords some hold for the thong which spans the tree between the feet; at every jump the body is thrown entirely free from the tree.

The bread-fruit tree is also said to have decreased, and this is no doubt the case; the seeds are said to be often abortive at Tahiti, for which reason the cultivation in this way has been neglected of late, and the plants raised in other modes have become less productive in consequence; its timber is used for many purposes; the fruit was not in season while we were at Tahiti.

Wild sugar-cane was found in the interior, commonly growing in tufts, but so small in size that it was with difficulty recognized; the cultivated kind is derived from this, and is also of small size.

The fruits we met with were oranges, lemons, limes, shaddocks, pine-apples, papayas, bananas, figs, vi-apples, fahies, cocoa-nut, and bread-fruit; the six first-mentioned have been introduced since Cook's time.

The vegetables are sweet potatoes (*convolvulus*), yams of small size, taro (*caladium esculentum*), the ape (*caladium macrorhizon*), turnips, onions, and leeks; but there were no common potatoes cultivated. I gave Mr. Wilson some of the yellow Peruvian potato (*papas amarillas*), but he informed me that all their attempts to raise potatoes in the low ground had failed.

The tacca, from which arrow-root is manufactured, grows in quantities, but we did not see it cultivated.

In the botanical researches it was remarkable that not a single stem of paper mulberry (*broussonetia*) was found, although former visitors speak of it as the tree from which their cloth was made.

There are a vast variety of ornamental shrubs, and many aromatic plants, which the natives use to perfume their cocoa-nut oil.

The tutui tree (*aleurites triloba*), the nut of

which is used in tattooing, is very common all over the island.

Tobacco is grown in small quantities.

Mr. Henry informed me that grapes succeeded well on the south-east side of the island.

The price of labour is from two to four dollars a month, but for occasional labour fifty cents a day is usually paid.

Wild hogs are said to be numerous in the mountain region; none of our parties, however, met any. Horses are possessed by many persons on the island, and goats were seen. Dogs and cats were abundant. The island is well supplied with cattle; they are suffered to run wild, and frequent the neighbourhood of the hills, whither they are obliged to go for pasturage, which is now very scarce on the island, on account of the thick growth of the guava.

After the departure of the Vincennes, a party from the Peacock, consisting of Mr. Dana and some others, obtained leave of absence from Captain Hudson for five days, with the design of ascending Mount Aorai. They commenced the ascent immediately in the rear of Papieti, and by noon on the second day had reached an elevation of five thousand feet, where they stood upon a platform about twelve feet square; thence they looked down eastward two thousand feet into the Matavai valley; to the westward they had a gorge about a thousand feet deep running into Toanoo valley; to the south, the platform on which they stood was united by a narrow ridge with Mount Aorai, which was apparently only a short distance before them. In this place they were compelled to pass the night by a fog which enveloped them, through which the guides were unwilling to lead them, refusing to proceed further along the dangerous path until the clouds should clear away.

The next morning was clear, and they pursued their ascending route along the edge of a ridge not more than two or three feet in width, having on each side an abyss two thousand feet deep. Seen from this ridge, looking south, Mount Aorai seemed a conical peak, but as it was approached it proved to be a mountain wall, whose edge was turned towards them. The only ascent was by a similar narrow path between precipices, and surpassed in steepness those they had already passed. The width of the crest seldom exceeded two feet, and in some cases they sat upon it as if on horse-back, or were compelled to creep along it upon their hands and knees, clinging to the bushes. At last they reached the summit, where they found barely room to turn around. The ridge continued for only a short distance beyond them, being then cut across by the Punaania valley.

From the summit of Aorai they had a magnificent view; to the south, it was speedily bounded by the peaks of Orohena and Pitohiti, whose steep sides rose from the valley beneath them; to the east, they had the rapid succession of ridge and gorge which characterizes Tahitian scenery; to the west, over a similar series of jagged ridges, Eimeo and Tetuaroo stood out from the horizon of the sea in bold relief; to the north, they looked down upon the plain, studded with groves of cocoa-nut and orange, and upon the harbour with its shipping, and the encircling reefs of coral.

A short distance below the summit of Mount Aorai, a mass of turrets and pinnacles, which from

its singular outline is called the crown, runs along the top of a narrow ledge.

Except the plain of the coast, no level land is in sight but the valley of Punaania; this is divided from that of Matavai by a ridge of the usual edge-like form, running upwards towards Orohena.

Very few of the natives who are now alive have been on the summit of Aorai; their paths in this direction, as in other places, do not lead beyond the limit of the groves of wild banana (*fahie*). Beyond the height at which these cease to grow, the ground is chiefly covered with a wiry grass (*gleichenia*), which springs up in many places to the height of ten feet, and is every where almost impenetrable. When this was not too high, they broke it down by casting their bodies at full length upon it; and when of larger growth, they had recourse to cutting away or breaking its stiff and crowded stems, until they had formed a way beneath it, whence the light was almost excluded.

The want of water, which after a few days of dry weather is seldom found even in the elevated valleys, was an additional discomfort. It is to be recommended to future travellers in the mountains of Tahiti to make provision against this inconvenience. The party was so much distressed from this cause as to enjoy the dew upon the leaves as a luxury.

Mr. Dana reported that the visit to Aorai conclusively settled one questionable point in the geology of the island. He found upon its summit neither corals nor "screw-shells," which vague rumours have long located on the top of the Tahitian mountains. Every one who has visited this island has probably heard that such formations exist in these lofty positions; but the report rests wholly on native authority. Moera, the guide who accompanied the party, and who resides near One-Tree Hill, insisted that he had seen both, and promised to show them. On reaching the summit, he began digging, and the rest of the party aided him. He soon brought up what he called coral, but which proved to be a grayish trachytic rock; and, although he continued to dig for some time longer, he could find nothing which he could venture to exhibit as screw-shells.

In their descent from Mount Aorai they followed the western side of the valley of Papoo, along a narrow ledge, similar to that by which they had ascended. After proceeding for two hours they reached a small plain, which speedily narrowed to a mere edge of naked rock, with a steep inclination; this they were compelled to traverse on their hands and knees, taking the greatest care to avoid detaching the rock, which in many places overhung a precipice; next followed a perpendicular descent of about twenty-five feet, down which they let themselves by ropes; this difficulty overcome, the rest of the route presented no dangerous features, and was performed in safety.

The manufactures of Tahiti are of little amount. Among them is that of arrow-root from the *tacca pinnatifida*, which employs a portion of the population. Cocoa-nut oil is also made, and preserved for use in pieces of bamboo, cut off at the joints, when the natural diaphragms form a bottom, and the piece is thus a convenient bucket. This oil is often scented with aromatic herbs, to be employed by the natives in anointing the hair and body; it is also used for burning in lamps, and is exported in

considerable quantities. The lamps, which are always kept burning in their houses at night, are made of the shell of a cocoa-nut. The wick is formed of wild cotton, and is kept upright in the centre of the bowl by two elastic strips of cocoa-nut leaf crossing each other at right angles.

Sugar is beginning to attract attention, and some attempts have also been made in the culture and preparation of indigo.

Making straw or chip hats is a favourite occupation among the women, whose former employment of making tapa has, as was stated in the preceding chapter, been much diminished by the introduction of European fashions.

I have also before referred to the abortive attempt of the missionaries to introduce machinery for the manufacture of cotton, which will be again mentioned in speaking of the island of Eimeo, where the experiment was made.

Before closing my remarks on Tahiti, I consider it my duty to say a few words in relation to the transgression of the local laws by many of the vessels which visit it, and some of which, I regret to be compelled to confess, bear the flag of the United States. I have particular reference to the license always allowed to the crews, and in which the masters and officers often themselves indulge, in making brothels of their ships. They also do not scruple to retail ardent spirits to the natives, although they well know that it is contrary to a law of the island, most strictly enforced on shore. Such conduct not unfrequently gives rise to difficulties very prejudicial to the interests of the owners; but it is still more disgraceful when considered in its destructive effect upon the people whose hospitality they are enjoying, and as a practice that they would not dare to indulge in, when in the ports of any civilized nation.

The influence of the example of these visitors upon the natives is demoralizing in the extreme, is calculated to retard their advancement in civilization, and throws countless difficulties and obstructions in the way of the laudable exertions of the missionaries.

Little idea can be formed by those who have not witnessed it, of the extent to which the practice of vending spirits is carried, not only at Tahiti, but throughout the Polynesian islands. I am satisfied, that if the owners of the vessels which indulge in it were aware of the traffic, and had a just sense of their own interest, they would interdict the sale of this pernicious article, and prohibit the carriage of it in their ships.

Captain Hudson, who was much troubled with the illicit supply of spirits to his men, and was aware of the fact that the practice of vending it was contrary to law, endeavoured to discover the parties engaged in this traffic. He did this not only for the sake of his own crew, who, when questioned, stated that their intoxication was produced by gin, bought at the rate of three dollars a bottle, but to aid the natives in their exertions to prevent the infraction of their laws by the white residents. In pursuance of these objects, he called a meeting of the chiefs, and stated his complaint. They forthwith ordered search to be made for the offenders by the police, by which some of them were discovered and immediately fined. At the examination, however, the chiefs stated to Captain Hudson, with what truth I do not pretend to say,

that seventy cases of *gin* had been landed by our own consul, from whom they believed that the retailers had obtained it, while the main stock being upon his premises, under the United States' flag, was protected from search.

The repairs of the Flying-Fish were not completed before the 10th October, up to which time the Peacock was detained, not only in order that they might sail in company, but because her officers were still engaged in the survey of the harbours. In the interval of leisure which was thus afforded them, the crew of the Peacock asked and obtained permission to get up a theatrical entertainment, for the amusement of the natives and themselves. The council-house was placed at their disposal for the purpose by the native authorities. The play chosen was Schiller's "Robbers," the parts of which had been rehearsed at sea, in the afternoons—a task which had been the source of much amusement. An opportunity was now presented of getting it up well: the dresses having been prepared, the day was appointed, and when it arrived the piece was performed; the acting was thought by the officers very tolerable, and finally gave great delight to the natives. The latter, however, were somewhat disappointed in the early parts of the performance, for they had expected an exhibition of juggling, such as had been given for their entertainment on board of a French frigate. While under this feeling, they were heard to say there was too much "parau" (talk). After they began to enter into the spirit of the performance, the murders took their fancy; and they were diverted with the male representatives of the female characters.

A number of comic songs, which formed the relief of the more serious play, were exceedingly applauded; among others they laughed heartily at "Jim Crow" sung in character, and could not be persuaded that it was a fictitious character.

On the 25th September, the Vincennes sailed from the port of Papieti for the island of Eimeo. The distance between its reef and that of Tahiti, measured by the patent log, is ten miles.

I had been furnished with letters to the Rev. Mr. Simpson, who is stationed as missionary at Eimeo; when we landed, he met us upon the beach, and gave us a most cordial reception; we were soon surrounded by nearly all the natives in the place, male and female, old and young, who followed us with expressions of wonder; their conduct reminded me of the manner in which an Indian chief is run after in the streets of our American cities. In spite of their excitement they were all extremely civil, and said they only wished to look at us, although some were disposed to feel us.

Mr. Simpson led the way to his house, passing by a thick and well-built stone wall, the only one which I had seen used as an enclosure in these islands; on my inquiring if it was the work of native labour, I was informed that it had been erected by an Irishman, who is now the overseer of Mr. Simpson's sugar plantation. This wall encloses a large lawn, with a number of fine bread-fruit trees; on each side of the walk was a row of low acacias, which were at the time in full bloom, with flowers of many colours,—yellow, orange, red, and variegated; at the end of the walk was a low thatched white cottage.

Mr. and Mrs. Simpson have the care of a school for the children of missionaries and respectable white parents: these are kept entirely separate from the children of the natives; the reason assigned for this exclusiveness is, that the danger of the former receiving improper ideas is such as to preclude their association with the latter. This may be good policy as far as the white children are concerned, although I doubt its having a good effect on their minds if they are destined to spend their lives among the islands. The habit they will thus acquire of looking upon the natives as their inferiors, cannot fail to have an injurious influence on both. The exclusiveness is carried so far, that the children of whites by native women, although they are united in the relation of husband and wife, are not admitted into these schools, because, as they say, they do not wish their children to be contaminated by intercourse with such a mixture of blood. In pursuance of the same policy they have, as it is said, procured the enactment of a law prohibiting marriage between whites and the natives.

This, I must say, appeared to me the worst feature I had seen in the missionary establishment. It is placed here for the avowed purpose of reclaiming the natives from idolatry, and the vices which are its concomitants. In doing this, their most successful efforts have been in the conversion and moral improvement of the young; yet they bring up their own children to look down upon them as being of an inferior order. In becoming acquainted with this feature, I no longer wondered at the character, which I was compelled by a regard for truth to give, of the children of missionary parents in Tahiti.

The missionaries are now aware that their proper plan is to devote their time and attention to the young; and in pursuance of this object, Mr. and Mrs. Howe have lately arrived from England, for the purpose of establishing an infant school.

It is to be regretted that the schools of manual labour have, for what reason I could not learn, been discontinued. Some of the natives who had been instructed in them evinced a knowledge of the trade of the carpenter, and furnished the ships with very good boards sawn by themselves.

The natives of Eimeo have an advantage over those of Tahiti in being free from the influence of evil example; many of them are industrious, and possess a proper feeling of the benefits they have derived from the missionaries, of whom they speak, whenever questioned, as friends.

Three of our crew having become enamoured of these islands, deserted while the Vincennes lay at Eimeo. They left the ship about ten o'clock at night, soon after which their absence was discovered, and parties sent out in every direction to intersect the roads and drive them to the hills. This was effected the following morning, and a large party of natives was employed to hunt them up. This task they speedily performed, and at last drove the deserters to one of the highest ridges, in full view of the ship. Here the runaways appeared at first disposed to make fight with stones; but when they saw the odds against them, and witnessed the alertness of the natives in leaping from cliff to cliff, they thought it best to give themselves up; which they did to three natives, naked except the maro, and armed respectively

with a rusty sword, an old cutlass, and a piece of iron hoop. These bound their hands, and led them down to the shore, whence they were brought on board, where the three natives received the reward offered for their apprehension. The chase and capture was an amusing sight to those who watched the proceedings from the ship.

Eimeo has, if possible, a more broken surface than Tahiti, and is more thrown up into separate peaks; its scenery is wild even in comparison with that of Tahiti, and particularly upon the shores, where the mountains rise precipitously from the water, to the height of twenty-five hundred feet. The reef which surrounds the island is similar to that of Tahiti, and as we have seen to be the case there, no soundings are found on the outside of it. Black cellular lava abounds, and holes are found in its shattered ridges, among which is the noted one through which the god Oroo is said to have thrown his spear.

While we remained at Eimeo, I visited Papoa or Cook's Harbour, which lies to the east of that of Taloo. There is a marked resemblance between the two ports, except that the shores of Papoa are not quite as precipitous as those of Taloo, and the entrance of the former not as practicable.

Wood and water may be had at both harbours in abundance, but in other respects the island is not well adapted as a place for the supply of ships. No more than a single ship would probably be able to find refreshments at a time. It is, therefore, seldom visited, and its surplus produce is carried to Tahiti for sale. Notwithstanding, the articles of traffic are quite as dear as at Tahiti.

It has been seen that the alluvial plain at the head of the harbour of Taloo is partly occupied by plantations of sugar. The cane is of superior quality, and the climate well adapted to its production; the plant is indeed indigenous, and it is well known that the variety of it found at Tahiti has been introduced advantageously into the West Indies. At Eimeo the crop is liable to injury from the ground-rat, and their are difficulties attending the management of the crop, which cause the cultivators to speak despondingly. About one hundred tons, however, are made annually.

Coffee, cotton, and all other tropical plants, succeed well at Eimeo, and the quantity of tapa manufactured is greater in proportion than at Tahiti.

I took the opportunity of my anchorage in the harbour of Eimeo, to verify the chart made by Captain Von Schantz, of the Russian ship *America*, and found it accurate. I have added some soundings, and laid down the topography of the shores, and the outline of the reefs, more minutely than he had attempted.

On leaving Eimeo, I bade adieu to the Tahitian islands; but I cannot close the portion of the narrative which is devoted to them, without again expressing the pleasure I and all my officers derived from our intercourse with the missionaries, and our obligations for the kindness received from them and other residents. Among those to whom we are indebted, I cannot refrain from naming George Pritchard, Esq., H. B. M. Consul, of whose strenuous exertions to advance the welfare of the people, and sustain the government in its efforts to promote their best interests, I became by observation fully aware. It is to be regretted that

his very activity in thus labouring in many ways for the good of the community in which he resides, should be the probable cause of unkind and un-

founded imputations, from those actuated, if not by motives positively bad, at least by a less enlightened or less ardent zeal.

CHAPTER XIII.

SAMOAN GROUP. ROSE ISLAND. TUTUILA.

DEPARTURE OF THE VINCENNES FROM TAHITI—BELLINGHAUSEN'S ISLAND—ROSE ISLAND—MANUA—ITS DESCRIPTION—CANOES OF MANUA—APPEARANCE AND CONDUCT OF THE NATIVES—VILLAGE—DRESS OF THE NATIVES—OLOOSINGA—ITS DESCRIPTION—HOUSE OF THE KING—HIS ENTERTAINMENT—RETURN TO THE SHIP—CORAL REEF OF OLOOSINGA—OPOO—TEMPERATURE DURING THE PASSAGE—PLAN OF OPERATIONS—APPEARANCE OF TUTUILA—HARBOUR OF PAGO-PAGO—TOA, A NATIVE CHIEF—GEOLOGICAL STRUCTURE OF TUTUILA—APPEARANCE AND CHARACTER OF ITS INHABITANTS—LA PEROUSE'S EXPEDITION—VISIT TO TOA—HIS FEAST—PRICE OF PROVISIONS—WAR-SONG—BATHING—MODE OF LIVING—EMPLOYMENTS AND AMUSEMENTS—MR. MURRAY, THE MISSIONARY—CUSTOMS OF THE NATIVES—PUBLIC WORSHIP—MISSIONARY—THE PEACOCK AND FLYING-FISH SAIL FOR UPOLO—SURVEYS—CLIMATE—VISIT TO HEATHEN VILLAGES—TEMPERATURE AT THE TOP OF MATAFOA.

ON the 29th of September, 1839, at daylight, having the wind from the northward and eastward, we got under way from Tahiti, and made sail to the westward, passing the Society Island Group, viz. Sir Charles Saunders' Isle, Huahine, Tahaa, Borabora, Maufili, and Moutoiti. All of these, with the exception of the last, are high lands.

On the 30th, we made Bellinghausen's Island, which is a low coral island, similar to those which have been already described. It was uninhabited, and is of a triangular form, with the usual vegetation, with the exception of cocoa-nut palms. We landed upon it, and made the magnetic experiments.

Birds were in great plenty, and as tame as we had found them at other uninhabited islands we had visited. No lizards or rats were observed, nor was the common fly seen. The lagoon had no passage into it at low water, but the tide flowed into it over the reef.

In the afternoon, we again made sail to the westward, for Rose Island, and on the 6th of October, we passed near the locality of the Royal George Shoal, but saw nothing of it.

On the 7th, which was the day appointed for our rendezvous off Rose Island, we came in sight of it, and at the same time descried the Porpoise. That vessel had passed by Nairsa or Dean's Island, and connected the survey of it with that of Krusenstern's and Lazareff. Both of these were found to have entrances into their lagoons; they are uninhabited, though occasionally visited by the natives of Nairsa Island. The position of Recreation Island was passed over, but no signs of land discovered.

Rose Island, the most eastern of the Samoan Group, was discovered by Freycinet, who gave it its name. It appears, at first, like a round knoll of land, but on a nearer approach, this is found to arise from a large clump of pisonia trees, similar to those found growing in the low archipelago. It is a low annular coral island, of small dimensions, inundated at high water, with the exception of two small banks, one of which is entirely covered by the clump of trees. The other is formed of dead coral, without any vegetation. The tide was found here to rise about four and a half feet, the flood setting to the eastward. The breakers on its

weather or south-east side are heavy; and there is an entrance into the lagoon, having four fathoms depth of water through it. The lagoon has from six to twelve fathoms in it. A remarkable coral formation, like a submerged tree, thirty feet in diameter over its top, was found in the centre of the lagoon, rising to the level of low water, and having all around it a depth of six fathoms. The currents set regularly out and in to the lagoon, according to the state of the tide. In stormy weather the sea must make a complete breach over the reef.

Some boulders of vesicular lava were seen on the coral reef; they were from twenty to two hundred pounds weight, and were found among blocks of coral conglomerate.

Birds were seen flying over the island, and on landing we found them in great numbers and very tame. The frigate-birds and boobies (sula), whose nests had before been observed on low bushes, were here found on the tops of trees fifty feet high. The noddies laid their eggs on the parts of the island destitute of vegetation. Tern were in great numbers; their breeding-place was in a thicket on the weather side of the island, or that which was exposed to the wind and sea, and was remarkable from the regularity with which the eggs were placed, about three feet apart, without any nest, and, with but few exceptions, out of many thousands, each egg lay separately. The colour of the eggs is a dirty white, mottled with brown.

On the 7th, we left Rose Island and stood to the westward, making at sunrise the island of Manua, which is two thousand five hundred feet above the level of the sea. It has the form of a regular dome, rising in most places precipitously from the water to the height of three or four hundred feet, after which its ascent appears more gentle and even. It is sixteen miles in circumference, is well covered with a luxuriant vegetation, and has many cocoa-nut groves on its north-west side.

On approaching it, Oloosinga was in sight, and shortly after Ofoo. These two islands lie to the north-westward, at the distance of about four miles.

The boats were lowered, and sent to trace the shores of the island of Manua, for the purpose of surveying it; whilst the Vincennes and the Porpoise passed on each side.

This island is inhabited. The principal settlement is on the north-west side, and there is anchorage for a small vessel near the shore, where there is a cove to land in, with but little surf during the fine season, or from April to November. It has a shore-reef of coral, and the soundings extend off some distance, eight fathoms being found four hundred yards from the shore.

The canoes of these islanders were the best we had seen. They are built of a log, having upon it pieces fastened together, to raise them sufficiently high. They are thirty or forty feet long, and are partly covered in at both ends. Some of them are capable of containing twenty or twenty-five men, and are very swift. The chief usually sits cross-legged on the forward platform or deck. They have an out-rigger, which is not so far removed from the canoe, and renders them more liable to be upset.

The king or chief of these islands resides at Oloosinga, in consequence of its being more easily defended.

After our party reached the ship, we made sail for Oloosinga, where I went on shore to see the king or chief, who was old and decrepit. His name is Lalalah. His brother, and presumptive successor, was with him, and met me as I landed from the boat. His mode of salutation was by taking my hand and rubbing the back of it against his nose.

The old man, I was told by the interpreter, could speak a little English, but I could not understand him. This he attributed to his age, and would not admit that it was owing to his ignorance of the language. They led the way to his hut, situated under a mural precipice twelve hundred feet in height.

The island of Oloosinga is a narrow ledge of rocks, rising nearly perpendicular on both sides, and is three miles in length. So precipitous is it at its ends, that it is impossible to pass around it on the rocks. The strip of land is about five hundred yards in width, on which bread-fruits and cocoa-nuts grow in great profusion and sufficient abundance for all the wants of the natives. They told me that this island had been chosen as a place of safety, since the other became unsettled in consequence of the wars of the Christian and Devil's parties; and that the island of Manua had formerly been the residence of the king, but that he found himself unsafe there, and had taken up his abode at Oloosinga, on its north-western side.

His house was elliptical in form, and thirty feet long, erected on a well-flagged terrace of stone, about four feet above the ground. It was well-shaded with cocoa-nut and bread-fruit trees, and was supported around by ten stout posts, with three others in the centre reaching the top. The roof came down within three and a half feet of the ground, and projected as eaves about eighteen inches or two feet. In the centre the hut was fifteen feet high and well thatched.

The whole floor was ordered to be spread with fine mats, which were carefully unrolled, and laid over the coarser ones on the floor. The king then seated himself in the centre, and desired me to take a seat between himself and brother. Shortly afterwards two large wooden trays were brought in, filled with cooked bread-fruit and covered over with leaves. One of these was placed before me,

when the king made a long speech, giving me welcome and offering food to eat. I was then desired to hand some to the king and his brother, and to others who were pointed out to me. This I did, but unfortunately continued my task, and handed it to one of the kanakas, or common people, who were sitting close around us; much displeasure was evinced, accompanied with angry looks. I now looked around for my men, but they were out of sight, on their return to the boat. In order to make the best of my situation, I asked what was meant, and feigned to be quite ignorant of having given any offence. After a minute they were apparently appeased, and pleasant looks were restored.

They handed round a shell containing cocoa-nut oil to dip the bread-fruit in, and another containing salt water. After we had eaten, they began a careful examination of my clothes, and appeared much pleased with the buttons. My pocket-handkerchief was taken out of my pocket, and spread on the mat to be examined by the king. His brother took off my hat and put it on the top of his large bushy head. They then had a made, of which I could not partake, after seeing the process of making it. It is first chewed by the women and thrown into a large bowl; water is added to it, and it is then strained through leaves. This was partaken of by them all, while they gave me a fresh cocoa-nut.

They were becoming more familiar every moment, and it was getting late, so I thought it time to make a move. I therefore rose up, and was followed by the natives, in number upwards of a hundred, including the king and his brother, to the boat. I looked carefully around for arms, but saw none among them. My boat was aground: the king, his brother, and several others got into it, saying they must have some presents. They seemed disposed to resist, and showed a determination to contest our getting off. I on the other hand was determined to get rid of them, and peaceably if I could; I therefore ordered the boat's crew to arm themselves, and drive every one of the natives from the boat, at the same time intimating to the king to use his authority, which I found, however, existed only in name. We thus succeeded in getting clear of the crowd, until we had no more than eight left; to each of these I presented a small fish-hook, and ordered them to get into the water, which was about a foot deep, and go; this they did, one by one. At last came the king and his brother's turn, to whom I presented, with great ceremony, first a small and then a large fish-hook; after which they left me, apparently in great good humour. I was heartily glad to be rid of such rapacious troublesome fellows so easily and without a fight. We then pushed our boat off. When just beyond the reef, in taking up our anchor, the boat had the appearance of returning again on shore. On seeing this, a great shout was set up by the natives, and one of them immediately advanced with my powder-flask. He said it had been taken by a boy out of the boat, and had been dropped into the water, to be picked up after we had shoved off. I gave the man a small present for his apparent honesty; but I am inclined to believe it was the fear of detection, and the belief that we had missed the article, and were returning for it, that induced them to give it up so willingly. It was some time

before he could be made to understand what the reward was for, but when he found it was for his honesty, he laughed heartily.

This having excited our suspicions, the boat's crew informed me that a canoe that was paddling off had been alongside of the gig, and that they felt satisfied that the natives had taken something from us. It being in our course towards the ship, we gave chase, and being favoured by the wind, soon overtook the canoe, to the great fright of the two natives, who were paddling with all their might, and whose eyes were full of tears when overtaken. They had nothing at all in their canoe, and after examination it proved we had lost nothing. To console them for this alarm, I gave them a few trifles, and they became easy and cheerful.

The coral reef around this island was different from any I had hitherto seen. It consisted of two regular shelves, the outer one from fifty to sixty feet wide, and the inner in places measuring one hundred and forty feet. A distinct mark of high water was measured along the beach, and found to be twenty feet above the ordinary sea-tide, which has from four to five feet rise.

Ofoo lies to the westward of Oloosinga. There is a passage for boats of about a fourth of a mile in width between them, and anchorage on the western side. Ofoo resembles Oloosinga; and, from the accounts we received, it has but few inhabitants: those of Oloosinga having made war upon them, and killed the "natives" off. There is a small and comparatively low islet off its western end, near which there is an anchorage. After sunset we bore away for Tutuila, which can be seen in fine weather from these islands.

The temperature in the passage from Tahiti to the Samoan Islands had increased from 77° 6' to 81° 11' in the air; and that of the water from 79° 6' to 81° 6'.

As it was my intention to make a thorough examination of this group, I resolved, in order to accomplish it in the least possible time, to divide the squadron, so as to put all the remaining islands under examination at the same time. The island of Tutuila being the most central, and, from the information I had obtained, the best position for my astronomical observations, I selected it for the Vincennes. That of Upolu was reserved for the Peacock and Flying-Fish when they should arrive; and in case of their being detained longer than I had anticipated, I should be ready to take up the survey of the latter, or assist in completing it. The Porpoise was ordered to examine the island of Savaii; and one of the naturalists, Dr. Pickering, was directed to join her, for the purpose of exploring the interior of the island during her operations in its vicinity.

On the 10th of October we had light winds, in consequence of which we did not reach Tutuila that day. At daylight on the 11th we were near its eastern end, and off the island of Anuu.

About eight miles to windward of the harbour of Pago-pago, we were boarded by several canoes, in which were some natives, with a white man, by name William Gray, whom I retained as interpreter during our stay here, and found of much use.

The island of Tutuila is high, broken, and of volcanic appearance. It is seventeen miles long, and its greatest width is five miles. The harbour

of Pago-pago penetrates into the centre, and almost divides the island into two parts. It is less varied in surface than the Society Islands; and its highest peak, that of Matafoa, was found to be 2327 feet above the sea. The spurs and ridges that form the high land are like those of Tahiti: precipitous, sharp-edged, and frequently rise in mural walls from the water to a height of three or four hundred feet, showing the bare basaltic rock. Above this height, the surface is covered with a luxuriant vegetation to the very top of the mountains; the cocoa-nut tree and tree-fern give the principal character to this beautiful scenery. Dead coral is seen along the shores, above high-water mark.

The harbour of Pago-pago is one of the most singular in all the Polynesian isles. It is the last point at which one would look for a place of shelter: the coast near it is peculiarly rugged, and has no appearance of indentations, and the entrance being narrow, is not easily observed. Its shape has been compared to a variety of articles: that which it most nearly resembles is a retort. It is surrounded on all sides by inaccessible mural precipices, from eight hundred to one thousand feet in height. The lower parts of these rocks are bare, but they are clothed above with luxuriant vegetation. So impassable did the rocky barrier appear in all but two places, that the harbour was likened to the valley of Rasselas changed into a lake. The two breaks in the precipice are at the head of the harbour and at the Pilot's Cove. The harbour is of easy access, and its entrance, which is about a third of a mile in width, is well marked by the Tower Rock and Devil's Point.

As we arrived off the harbour the wind grew light, and finally came out ahead, thus compelling us to beat in to our anchorage, under the direction of Edmund Foxall, a white pilot. He usually comes off to vessels when within two or three miles of the harbour, on a signal being made. We made many tacks before we reached our anchorage, which was in deep water, twenty-nine fathoms. About half a mile from the entrance of the harbour, it bends at right angles. In this position, surrounded by cliffs, the firing of a gun produces a remarkable reverberation, resembling loud peals of thunder.

We were surrounded, as soon as we entered, by a large number of canoes, filled with natives, who all seemed delighted with the ship and the number of men on board. When we had moored, one of the principal chiefs, whose name was Toa, was admitted on board; he was an athletic, muscular man, of large frame, about forty years of age, with a pleasant expression of countenance; he manifested great pleasure in welcoming us. He began by telling me, through the interpreter, that he was a missionary; that he had formerly been a great thief, and a doer of many bad acts, but being now a missionary, he was reformed and stole no more. He told this with such an open expression of countenance and so much simplicity, that I could scarcely forbear smiling. After I had finished asking him questions, he continued eyeing me from head to foot, as if determining my dimensions. I told the interpreter to ask him why he looked at me so intently. He replied, that he had a coat on shore that was too tight for him about the arms and chest, and he believed it would fit me: if

so, he should be glad to exchange it for the jacket I had on. Not being inclined to this exchange, I ordered a small hatchet to be given him. This gratified him much, and he instantly went over the ship's side to show it to his friends. This same Toa is chief of the village of Fungasar, about three miles distant from the harbour, on the north side of the island. He learns to read and write, being taught by some of the small children, and attends school regularly. He became of great use to us, and was a constant visitor. During one of his visits on board, he espied some red umbrellas among the presents, and from that time was continually endeavouring to obtain one for his wife, and brought many articles in the hope of inducing us to part with it in exchange for them.

The geological character of this island is similar to that of Manua; it has only a shore-reef of coral, and soundings extend some distance from it. It has many desirable ports or bays on its north side, where vessels may obtain wood, water, and supplies. The best and safest port, however, is that of Pago-pago, on its south side, which affords a safe harbour for vessels to overhaul, and where supplies may be obtained in abundance.

Tutuila is thickly settled round its shores, and particularly at its south-western end: this is lower and more easily cultivated than the eastern, which is high and rugged. The only communication is by the sea-shore, the hills being too precipitous and difficult of ascent to pass over.

The men of Tutuila are a remarkably tall, fine-looking set, with intelligent and pleasing countenances. In comparison with the Tahitians, they would be called sedate.

The women are far from being good-looking, with the exception of some of the younger ones. They are remarkably domestic and virtuous, exhibiting a strange contrast to those of Tahiti. Here there is no indiscriminate intercourse, the marriage-tie is respected, and parents are extremely fond of their offspring. The inhabitants are disposed to be hospitable to strangers, although they expect remuneration for it. Travelling is generally believed to be safe throughout the island of Tutuila; and the natives, as far as our experience goes, are not the blood-thirsty race they have been reported to be. The unfavourable estimate of their character has, I presume, been derived from those who first knew them, and particularly from their attack upon the expedition of La Perouse. Of this conflict I obtained the following particulars from the Rev. Mr. Murray, who had them from an old man, who was a witness of the affray. The latter is the only individual now alive in the settlement who was present when it occurred, and his testimony was corroborated by others who had heard of it from those who witnessed the scene.

On the morning of the massacre, the vessels stood in towards the land. About noon the boats went ashore, as recorded by La Perouse, and while on shore, a number of canoes, belonging to the island of Upolu (to which Tutuila was at the time subject), went from the shore, and proceeded directly to the vessels. When these canoes were alongside, a young man in one of them laid his hand on an iron bolt in some part of the ship, with the intention, it is supposed, of stealing it. He was fired upon by the French. The ball

passed through his shoulders, and mortally wounded him. The natives, on seeing the effect of the shot on one of their number, were greatly enraged, and immediately left the vessels, and hastened to the shore, where they found the boats that had gone to get water. On reaching them, they began the attack, which resulted in the massacre of M. De Langle, and of those who were with him on the shore. When the natives began this attack, the great body of the French were absent from their boats; some were in the bushes gathering plants, and others talking to the females. On the commencement of the disturbance, they all rushed towards their boats, and the confusion became general. The minute circumstances of the affray, further than the above, cannot now be ascertained from the natives. They are, however, very clear in reference to the cause, and to those who were the actors in it, viz. the natives of Upolu. The Tutuilians maintain that they endeavoured to save the lives of the French; and on the following day, as soon as they dared to venture from the mountains, whither they had fled during the massacre, they collected the bodies, which they found in a state of nudity, dressed them in native cloth, and buried them in the beach, as they were accustomed to bury their own chiefs. The actors in the massacre proceeded at once to Upolu, which will account for their having been afterwards seen there, and recognized by the French. Our inquiries relative to the spot where they had buried the bodies were not satisfactorily answered. How the carpenter's son escaped is not known. He is said to be still living at a village on the eastern part of the island. There appears to be mention made of a boy among the missing, in La Perouse's account. Levasii, a chief of the district of Faleletai, was at the massacre of the party of La Perouse. He was then a boy of thirteen years of age. He remembered the occurrence, and that three of the Papalangis were killed.

The perpetrators of the deed were some young chiefs from the district, who were on a "malanga" to Tutuila. At that time Aana district had the rule, or was the "Malo" party, and domineered over the inhabitants of the other islands and districts.

On the 17th, our friend Toa gave us an invitation to visit him at his town of Fungasar, on the north side of the island. It is situated on the next bay to that now called Massacre Bay, where De Langle was killed. The path across the island is a very difficult one to travel; it leads up through the valley, and across the dividing ridge, which is quite precipitous. The rain which had fallen made it very slippery, and the journey was fatiguing to those not accustomed to this kind of walking.

I was much struck here with the manliness and intelligence of the natives, and with their frank open expression of countenance. The colour of their complexion is rather darker than that of the natives of Tahiti. The outlines of face and figure are very like those we had left, their hair and eyes black, and their teeth good and white. Some of them had frizzled hair, but it was generally straight.

Just before arriving at the village, we were met by Toa, and some of his relations and attendants, who welcomed us to his village, saluting me by rubbing his nose with my hand; this is the usual custom.

He ordered a pig, taro, bread-fruit, &c. &c., for our entertainment. These were cooked in the universal Polynesian mode, by being covered up in a hole with hot stones. We were soon told that the feast was ready, but having had some experience of their cooking, we desired it might remain in the oven a little while longer. Their usual custom is to take it out the moment that the taro is cooked, and from daily practice they are well acquainted with the time required to cook it. This is scarcely sufficient to give the pig time to be warmed through. Our request prevailed, and in the course of half an hour we were summoned to the council-house or fale-tele, where strangers are always entertained. We were shown our seats, on one side of a circle, while Toa, with his family and friends, occupied the other. The mats, except one, were not very clean. The pig, which must have weighed one hundred pounds, was brought in, and laid with the taro and bread-fruit on banana-leaves. A butcher's knife was all that we possessed to carve it with. The whole village, old and young, men, women, and children, who were waiting in anxious expectation for their share, now surrounded us, and made it uncomfortable to eat, with so many hungry expectants; I made haste, therefore, to divide it, and with it they soon dispersed. The taro was exceedingly well cooked, dry, and farinaceous. The bread-fruit they said was too young, and not being considered good by them, they objected to giving us any of it, but did not hesitate to eat it themselves. A pig is a great treat to them, for although they have plenty, they prefer selling to eating them.

All kinds of provisions in these islands are enhancing in value, and will continue to do so. It is remarkable how the prices fluctuate. On some days provisions of all kinds will be exceedingly cheap, and almost any article will be taken in exchange; and then again nothing can be found to please the natives, or induce them to trade, although the quantity for sale is equally as great. It was not a little amusing to see the natives sitting whole days to obtain the price of their fowl or pig, and persisting in their refusal of the offer made; and this was sometimes done by a large number at the same time, all remaining true to each other until their poe or food became exhausted, when they would take the earliest opportunity of disposing of their different parcels.

In the grove near the village we saw several piles of stones. I was told they were the graves in which they formerly buried the dead, just below the surface. On the top were placed stones, forming a high pile. Now they bury their dead in graves about three feet deep, and enclose them with the dracaena, which grows rapidly, and forms a pretty and neat trellis.

Toa became quite communicative, and as he showed me about his village, he told me, through the interpreter, that before the missionaries came, the chiefs all had their "aitu" or spirits, which they worshipped, and that they felt themselves obliged to do every thing they commanded. His aitu were fresh-water eels, which he constantly fed in the brook near the village. I visited it, and requested him to catch one, which he attempted to do; but after a long search, turning over large stones, and examining holes, he was unsuccessful. He said there were many in it formerly, and quite

tame; but since he had embraced Christianity, they had all been caught and destroyed. On further questioning him, he told me that he had himself eaten them; and that formerly if any one had touched, disturbed, or attempted to catch one, he should have killed him immediately. He said his eels were very good to eat, and was sorry he could not find any more; and laughed very heartily when I spoke to him about eating his aitu. I mention this circumstance to show the powerful effect the Christian religion has had upon the ancient customs of this people.

After much persuasion, they were induced to sing some of their old war-songs.

A translation of one of their songs was made by an interpreter, and is as follows.

A chief of Samoa attacks an enemy on another island and conquers. After the victors have embarked safely for their island, they sing as follows:—

"Keep her away, and mind the helm."

And when they get home, the people sing,—

‡ "We are glad you have come to your island of plenty,
We have waited a long time for our chief and canoes."

Toa, after his unsuccessful search for his favourite eels, went into the brook for a bath, which he told me he very frequently did during the day; and it was delightful to see the pleasure he took in it. The natives, indeed, are almost constantly in the water, and, consequently, very cleanly in their persons. Finding that it occupied too much of their thoughts on the Sabbath, bathing on that day has been forbidden.

Towards evening, we took our leave of Toa, thanking him warmly for his kindness; we were escorted to the outside of the village by his friends and relations, whilst Toa himself accompanied us to Pago-pago.

The natives have no fixed time for meals, eating whenever they feel hungry. Their food consists of pork, fish, bread-fruit, cocoa-nuts, bananas, &c., but principally of taro. All of these are produced in abundance. Water is their common drink, and, notwithstanding cocoa-nuts are so abundant, the milk is seldom used: the trouble of procuring them is too much for them. They use ava made from the piper mythicum, and it is the only intoxicating drink they have*. It is never used to excess, although old and young, male and female, are very fond of it. The taste, to one unaccustomed to it, is not pleasant, being somewhat similar to that of rhubarb and magnesia. Their mode of preparing it is the same as has already been described.

They sleep on the large coarse mats with which they always cover the floors of their houses. Over these they spread coloured tapas, some of which are also used for nets of protection against the numerous mosquitoes. For a pillow they use a piece of bamboo supported on small legs. Their hair is frequently shorn close, and coral, lime, or ashes sprinkled over it to destroy the vermin,

* The ava does not, according to the whites, intoxicate in the same manner as ardent spirits, but produces a temporary paralysis, tremors, and a confused feeling about the head, indistinctness and distortion of vision, somewhat resembling the effect of opium.

which are generated in great numbers in their tapas and mats.

According to old Toa, a native is in a comfortable condition when he has a good house; a well-made visiting canoe; a neat, handy, large, and well-formed woman for a wife; a taro-patch with a good fence; cocoa-nut, and bread-fruit trees, with a reasonable number of pigs.

The women are now admitted to the same privileges as the men. The chiefs have still great power over the people, although the influence of the missionaries has tended greatly to diminish it. Most of the people look back to the days when polygamy existed with regret, and cannot understand why they are restricted to one wife. They say, "Why should God be so unreasonable as to require them to give up all their wives but one for his convenience?" They pay just attention to their religious duties; morning and evening prayers are always said, as is grace before their meals, and with a devotion rarely to be seen among civilized men.

Their amusements seem to be few; their books are constantly before them, and a great portion of their time is employed over them. Old gray-headed men may be seen poring over the alphabet, and taught by some of the youngest of the family. The employment of the men is to cultivate and weed the taro, and to take care of the fences; they also make sennit for their houses, and canoes for fishing. The women are engaged in making mats, and the boys and girls play, and wait upon their seniors.

Next to study, fishing is their great employment. This is performed by driving the fish towards the nets in shoal water, where they are easily caught. The cast-net is also used.

The only amusement we saw, is a game called lafo-tupe, which is played with cocoa-nut shells, and resembles shuffle-board.

Mr. Murray is an amiable as well as a truly pious man, and the natives have imitated the example set by him. He studiously avoids any intercourse with them in the way of trade or barter, except so much as is necessary for the provision of his own family, and devotes his whole time to preaching and teaching the Gospel. He is one of the missionaries engaged in translating the Bible, many parts of which are now completed, and extensively used by the natives, many of whom read and write well.

Their observance of the Sabbath is very strict; and it is impossible to get a native to do any thing whatsoever on that day, but perform his religious duties. They attend church regularly. In Mr. Murray's congregation there are about thirty communicants, and nearly one thousand attendants on public worship. They come from many of the surrounding villages. Mr. Murray has been here about three years, and the native preachers nine or ten; he is well acquainted with the difficulties of his station, but seemed to feel assured that his exertions were about being crowned with success. He represented to me that the natives were very tractable, and desired exceedingly to be taught; that they had much application, seemed to comprehend many things, and were certainly not surpassed in intelligence by any of the natives of Polynesia.

Polygamy, which formerly was practised to a great extent, still exists among those who have not been converted.

Circumcision is practised among them.

They carry their children in the same singular manner on the hip, as in the low archipelago. They are early betrothed, without regard to age, the girl being saa, or tabooed, until of marriageable age. During the intervening time, all kinds of native property are accumulated, such as mats, &c., for the bridal day. Two days previous to it, the inhabitants of the district are gathered together for feasting and dancing. On the third day, the bride is produced before the assembled multitude, and the ceremony attendant on marriage that was customary among the Jews performed. After the marriage had been consummated, the dowry was exhibited, and each article being held up it was proclaimed by whom it was presented; the multitude, having consumed all the eatables, and exhausted their strength in rioting and debauchery, dispersed.

I have seldom seen a more devout or attentive collection of people than I observed at times in the church meeting, which was held in the council-house at Pago-pago; the new church was undergoing alterations; for on its being completed, it was found it would not accommodate the congregation, when they determined to enlarge it.

Upon the conclusion of a long service, they were observed to divide themselves into three parties; one remaining in the church, and the other two repairing to different buildings. The object of this was, that they might listen to instructions from their native teachers explanatory of the sermon, and also receive exhortations to put away all that is unbecoming to the Christian character. The afternoon is employed in further explanations and examinations by the missionaries. The native missionaries have also meetings on Fridays.

Their mode of singing hymns is peculiar, the whole mass joining in some parts, with all the lungs they could muster. This exercise appeared to afford them great delight. The congregation were mostly dressed in tapas, or clothed in one sort of garment or other; but the person who attracted our attention most, was the consort of Pomale. From being the wife of the most influential personage, she had received more presents from us than any other; and she endeavoured, on this occasion, to display on her person the greater part, if not all, that she had thus acquired. These consisted of a red calico gown, four or five petticoats of different colours, woollen socks, green slippers, cap and bonnet, a large plaid blanket shawl, and a pair of polar gloves, the whole surmounted by a flaming red silk umbrella—and this with the thermometer at 87°! It was difficult to keep our eyes off her during the service, and before the end of it all her finery became awry. The other natives also seemed to have the desire of exhibiting their acquisitions, though these consisted frequently of no more than a vest, or a pair of pantaloons, without shirt, or occasionally of a long-skirted coat, without either of the former garments, so that a small roll of tapa was needed to cover their nether parts.

Some unauthorized attempts were made to induce the natives to break the missionary laws, by offers of great value in their eyes; they were told the missionaries would not see them. On understanding which, they pointed to the heavens, and replied, "There missionary see." This was conclusive, and a just and severe rebuke.

The Peacock and Flying-Fish again joined us on the 18th of October, in eight days from Papieti. Orders were at once given them to proceed to Upolu, to commence the survey of that island. They did not sail, however, until the 20th, having been detained by the winds. The harbour of Pago-pago, though easy of access, is extremely difficult to leave, in consequence of the south-east trade-winds blowing directly in, and rendering it necessary to make short tacks. Indeed, a vessel no sooner gets headway on one tack, than it is found necessary to tack again. The sea is often heavy at the mouth of the harbour, and the shore is lined with a narrow coral reef all around it. I was glad to see the Peacock safe outside, after beating about four hours.

During our stay on this island, the whole was examined, the harbour surveyed, and the principal heights determined. Tide-gauges were kept on the north and south sides, and the observations for magnetic dip, variation, and intensity made. The temperature during our stay of fourteen days varied from 73° to 88° ; the mean temperature was 80.50° .

The climate of Tutuila is mild and agreeable, particularly at Pago-pago, where the temperature is lower than it is elsewhere on the island, in consequence of its generally being overshadowed with clouds that hang on the high land. There is usually a fine breeze, which sets in about ten o'clock, and continues until sunset. The nights being calm, much dew falls in fine weather. We had little fair weather during our stay, and the prognostication of the natives proved too true, respecting the difficulty of seeing the sun and stars. The wind at times was very strong, almost a gale, accompanied by light rain and mist. I was informed that there is a good deal of rain during the year, but seldom such a continuance of it as we experienced. There does not appear to be any particular rainy season, but they are liable to these high winds during the winter months, or from October to March. During eleven days of our stay, the quantity of rain that fell was $4\frac{9}{16}$ inches.

In our explorations, nearly all the villages of this island were visited by some of the officers of the squadron, and from their report they much resemble each other. Those of Fagaitua and Leone, on the southern coast, are the largest, and are more of the Devil's towns than the others. One of their customs is truly savage. They seldom use pork as a food, consequently it is a great rarity with them; but at intervals of several months the villagers assemble at a feast, at which thirty or forty hogs are killed, when they gormandize on them for four or five days, or as long as the food lasts. The whole is eaten, entrails and all. Fish and taro are the principal food, and large numbers of the natives may be seen fishing off the coast in fine weather. The kind of fish usually caught are mullet.

There is a large kind of worm which they esteem a great delicacy, and which is eaten with much relish. It is impossible to see them sucking down the entrails of the biche-de-mar, holothuria, and echina, without disgust. They also eat many of the shell-fish that are found on the shore.

The temperature found on the top of Matafoa, at the altitude of two thousand three hundred and fifty-nine feet, was at 4 P.M. 69.4° , whilst that on board the ship was 79.5° .

We made an endeavour here to search the reefs at night for shells, with flambeaux or torchlight, after the manner of the Chain islanders, by which means it is said that many species of shells are taken, which are never seen by daylight. We cannot vouch for this being the case, our experiment not having succeeded. The leaves of the cocconut were either too green or too wet to burn. If success really attends this method, it is a singular trait in the economy of mollusca, which are generally supposed to be partial to daylight. It was my determination to make another trial, under more favourable circumstances; but from our constant occupation and fatigue of the crew in the daytime, we were unable to renew the experiment.

CHAPTER XIV.

SAMOAN GROUP. UPOLU. SAVAIL.

DEPARTURE OF THE VINCENNES FROM TUTUILA—HER NARROW ESCAPE FROM WRECK—APPEARANCE OF UPOLU—MESSAGE FROM CAPTAIN HUDSON—TRIAL OF TUVAI FOR MURDER—COUNCIL OF THE CHIEFS—ARGUMENTS IN BEHALF OF TUVAI—CAPTAIN HUDSON'S REPLY—DECISION OF THE CASE OF TUVAI—HIS BEHAVIOUR—COMPLAINTS OF THE NATIVES AGAINST WHALERS—PEA'S VISIT TO TUVAI—OUTRAGES OF OPOOTUNO, A NATIVE CHIEF—VISIT TO MR. WILLIAMS—INTERVIEW WITH MALIETOA—HIS DAUGHTER—LAKE OF LAUTO—ITS LEGEND—SUPERSTITION REGARDING IT—ATTEMPT TO CAPTURE OPOOTUNO—FONO, OR COUNCIL, OF HIGH CHIEFS—ITS OBJECT—MR. J. WILLIAMS RECOGNIZED AS CONSUL—REGULATIONS DISCUSSED AND ADOPTED—DEMAND FOR OPOOTUNO—FONO ADJOURNED—ITS SECOND MEETING—SPEECH OF MALIETOA'S ORATOR—REWARD OFFERED FOR THE APPREHENSION OF OPOOTUNO—TERRITORIAL DIVISIONS OF UPOLU—TYRANNY OF TAMAFAGO—WAR OF AANA—DESOLATION OF THAT DISTRICT—ISLAND OF MANONO—ISLAND OF APOLIMA—PROCEEDINGS OF THE PORPOISE AT SAVAIL—DR. PICKERING AND LIEUTENANT MAURY LAND THERE—SURVEY OF THE COAST OF SAVAIL—VILLAGE OF FETIALUPO—INLET OF ASAU—BAY OF MATAATUA—PECULIARITIES OF ITS INHABITANTS—SAPAPALE—DR. PICKERING'S JOURNEY IN THE INTERIOR OF SAVAIL—CURIOSITY OF THE NATIVES—FISHING ON THE CORAL REEF—DESCRIPTION OF SAVAIL—THE PORPOISE PROCEEDS TO TUTUILA AND UPOLU—REUNION OF THE SQUADRON—REVIEW OF THE MARINES—EARTHQUAKES.

THE surveys of the island of Tutuila having been completed by the 23rd November, we made preparations for our departure, and on the 25th we weighed anchor. In leaving the harbour we had a narrow escape from wreck; the almost constant south-east wind, which is fair to a vessel entering the bay, and makes it easy of access, is ahead on going out, which renders egress difficult; it therefore becomes necessary to make frequent tacks, and a vessel must be well manœuvred to escape accident, for to miss stays would be almost certain to bring about shipwreck. When we beat out, the wind was light, and it failed altogether just as we reached the most dangerous part of the channel; we were in consequence brought within an oar's length of the reef, on which a heavy surf was breaking. The moment was a trying one, and the event doubtful; all were at their stations, and not a word was spoken. Of my own feelings on the occasion I have no very precise recollection; merely remembering that I felt as if I breathed more freely after the crisis had passed and we were in safety.

The afternoon was fine, and we sailed along the southern shore of the island, admiring its diversified surface, its luxuriant groves, and the smiling villages that crown its bays. Where the valleys come out from between the ridges to the shore, there is usually a level plain extending inwards for a couple of miles; these plains are occupied for the most part by groves of cocoa-nut and bread-fruit, beneath whose shade lie the dwellings of the natives. Many of the inhabitants were abroad in their canoes, employed in fishing; some of them scarcely seemed to notice the ship, passing them rapidly with all sail set, while others appeared to regard her with intense curiosity. In the evening we had much lightning, but no thunder.

The distance between Tutuila and Upolu, of thirty-six miles, was soon passed, and in the morning we were delighted with the view of the latter island as we ran down its coast to the westward. It appears much richer and more fruitful than the other islands of this group, and may be described as of moderate height, rising gradually in a succes-

sion of ridges from a low shore; here and there broad and fertile valleys are seen, with numerous streams falling from the mountains in cascades. The eastern portion of the island is much more rugged than the western; the main ridge runs east and west, and ridges or spurs run back to it from the northern coast in a south-east direction. Between these lateral ridges are broad and fertile valleys, decreasing in width as they recede from the coast. The shore is lined with a coral reef, which is now and then interrupted by channels, and forms snug and convenient harbours.

At noon we desisted the Peacock lying in the harbour of Apia, and shortly afterwards I received a message from Captain Hudson, saying that my presence was required on shore. In the hope that it was not a business of such a nature as to cause detention, I left the Vincennes in the offing, while I went ashore in my boat. On reaching the land, I found the chiefs engaged in the trial of a native called Tuvai, who had killed an American named Edward Cavanaugh, a native of New Bedford.

It appeared that on Captain Hudson's arrival, the murderer was pointed out to him in the village, upon which he very properly determined to have the offender punished, and gave orders to have him arrested. He was in consequence seized in a house near the water, and carried on board the Peacock. Being taken by surprise, he offered no resistance to his capture. Captain Hudson then requested a conference with the neighbouring chiefs, who in consequence had assembled on the 27th.

The *fono*, as such assemblies are called, was held in the council-house, or fale-tele, where the chiefs were collected. The Rev. Mr. Mills acted as interpreter on the occasion. Captain Hudson, through him, stated that the object of his having requested them to assemble was to bring the accused to a trial before them, in order that if his guilt were established, he might be brought to condign punishment: he then pointed out to them the guilt and consequences of the crime of murder, and declared the course he had considered it his duty to adopt. The chiefs listened attentively to

this address, and in reply, through the principal one, admitted that the man taken was in reality the guilty person, a fact known to every person upon the island. Captain Hudson then stated to them that it was absolutely necessary that Tuvai should be promptly punished, in order that others might be deterred from the commission of the same crime. He suggested, however, that in spite of the universal belief in Tuvai's having committed the crime, it was proper that he should undergo a trial, or at least an examination in order that he might have the privilege of being heard in his own defence.

This suggestion being approved, Tuvai was brought on shore under a military guard, and placed in the centre of the building. He was an ill-looking fellow, of about twenty-eight years of age, and manifested no fear, but looked about him with the greatest composure.

The trial was simple enough: he was first asked by the chiefs whether he was guilty of the crime, to which he answered that he was; being next asked why he had committed it, he replied that he had done it in order to possess himself of the man's property (clothes and a knife).

The chiefs, among whom was Pea, of Apia, to whom the criminal was distantly related, made every effort in their power to save his life; stating that he was in darkness, and therefore unconscious of the guilt of the action, when he committed the murder; that as they had but just emerged from heathenism they ought not to be subjected for past actions, to laws they knew not; that these laws were made for people who occupied a more elevated station; that Tuvai was a poor man of no account, and was not a person of sufficient importance to be noticed by a great people like us; that faa Samoa (the Samoan fashion) did not allow men to be put to death in cold blood, but that after so long a time had elapsed, as in the instance before them, it admitted of a ransom.

Pea went on to say, that many bad acts had been committed upon natives by white men with impunity, and asked whether the Christian religion sanctioned the taking of human life. He then appealed to our generosity to pardon the present crime, and assured us that no such offences should be committed in future.

Pea had one of those countenances which exhibits all that is passing in the mind. It was amusing to see him at one time exhibiting a picture of whimsical distress at the idea of being compelled to put his kinsman to death, and immediately afterwards laughing at something ludicrous which had occurred to him.

Pea was seconded in his endeavours by Vavasa, of Manono, one of the finest-looking of the chiefs, whose attitudes and movements were full of grace, and his manner exceedingly haughty and bold.

In reply to their arguments, Captain Hudson stated, that however freely other sins might be forgiven, in consideration of their late benighted state, even the darkness of paganism could not extenuate the crime of murder. He told them that the Scriptures said, "Whoso sheddeth man's blood, by man shall his blood be shed;" that nothing but the life of the offender could satisfy the demands of justice, and that they must execute the criminal themselves.

This announcement caused much excitement; the

chiefs again asserted that they knew no such laws; that by the customs of Samoa, the anger of the friends and relations of a person who had been killed was to be appeased by a present from the criminal or his relations, and by a form of submission, which consisted in knocking their heads three times on the ground. To this it was replied, that the guilt of the prisoner had been proved and admitted—he must die.

The chiefs, after much reluctance, consented, but expressed great repugnance to an immediate execution. They urged in a most strenuous manner, that the criminal should be carried on board ship, and executed there, or that he should be taken to some uninhabited island and left. These alternatives were refused by Captain Hudson, and the chiefs seemed in great distress.

At this point of the discussion, the Vincennes was announced as being in sight, and the proceedings were suspended. An officer was immediately despatched, who, as has been already mentioned, boarded that vessel off the harbour.

When I landed, I found the assembly anxiously awaiting the result of my arrival. Captain Hudson and myself had a private interview, in which he detailed all the facts, and stated that it had been his intention to compel the chiefs to make all the preparations for the execution, but before it was carried into effect to come forward and reprieve the criminal, at the same time requesting Mr. Mills to make an appropriate speech, stating the reasons for the pardon.

After a full discussion of the whole subject, we came to the conclusion, that it would be best to transport the criminal to some other island; for it appeared probable that this would have a better effect than even his execution, as it would be longer remembered, while to cause him to be put to death might naturally excite a desire of revenge.

This decision was at once communicated to the chiefs, with a statement, that in conformity with the laws of Tahiti in such cases, Tuvai should be transported to a desert island, where he would never again have an opportunity of killing a white man. The chiefs, although evidently relieved from the most intense part of their distress, were still much affected by this decision.

The prisoner was then ordered to be taken on board the Peacock, whither he was followed by a crowd of natives, with many tears and lamentations, among whom his wife was the most affected. Among others, Pea, the chief of Apia, to whom, as has been stated, the prisoner was related, was very much distressed and excited. Unable to vent his rage and trouble in any other manner, he spent it upon the crowd around him, striking in all directions with a huge stem of a cocoa-nut leaf, by which he soon dispersed them. I felt a curiosity to see what effect the sentence would have upon the prisoner. Death he would have suffered without uttering a murmur; but when he heard he was to be taken from his native land, his firmness was overcome, and he was observed to shed tears. He made no resistance to his being removed on board ship, but after he got there he said he would rather be put to death and buried in his own native island, than banished to a desert one.

After this difficult business was arranged, they brought their own grievances before me, and particu-

larly their complaints against the American whalers. They said that some of them had evaded their port charges, and refused to pay for the provisions with which they had been furnished. To this I replied that I was ready to indemnify them for their losses, and should ask no other proof of them than their own statement. They appeared struck with the unexpected liberality of this offer; but, after consultation, as if to manifest a corresponding feeling, declined to accept it. I then informed them that their port-charges for the squadron should be paid, which gave much satisfaction, particularly to old Pea, who would derive the principal benefit from them. The fono then broke up in great good humour.

Pea and some of the other chiefs were very anxious to hear from me what sort of an island Tuvalu was to be put upon. They asked many questions in relation to it, and always among the first, whether there would be any cocoa-nut trees, nature's first and best gift to them, upon it. Wishing to make the intended punishment as terrible as possible to them, I always replied that there would be none whatever.

After Tuvalu was again on board ship, old Pea paid him a visit, in the course of which the former melted into tears, howled bitterly, and begged that he might be taken on shore to be put to death, in order that his body might be buried in his native soil. It appeared from information that we received, that this was a part of a concerted plan to obtain a further commutation of his sentence, and that this affecting interview was got up in order to excite our sympathies. Finding it did not produce the desired effect, old Pea went about the ship with a doleful visage, exclaiming, "Eoloisa-ia-tu Tuvalu"—have compassion on Tuvalu.

I was in hopes to find the surveys of Upolu nearly, if not quite finished; but the Flying-Fish, which was to have aided in performing them, had not yet been seen or heard from. This was no small disappointment, as it might compel me to bring the Vincennes into the harbour, and thus incur a serious delay.

Before I had decided upon this step, I learned that a chief of the name of Opotuno, whose capture had been considered so important by our government that a ship of war had been despatched for the express purpose, had again become troublesome, and was threatening vengeance upon all the whites who might fall in his power. I therefore determined to make an attempt to obtain possession of his person by stratagem. Lest, however, such an attempt should create disturbance in the island, or be productive of injury to the white residents, I determined, before putting my purpose into effect, to have an interview with the Rev. Mr. Williams, the principal missionary in these islands, both to consult as to the best mode of accomplishing this object, and to learn what effect it would be likely to have on the operations of the missionaries*. I accordingly set out for his residence at Fasetootai, about twenty miles to the westward of Apia, in the hope of seeing him. Mr. Cunningham, H. B. M. vice-consul, was kind enough to accompany me.

* Mr. Williams is the author of the well-known Polynesian Missionary Researches, and it will be our melancholy office hereafter, to speak of his falling a martyr in his efforts to propagate the Gospel.

We left the Peacock at sunset, and reached Mr. Williams's snug cottage about midnight. Nothing could be kinder than the welcome he gave us; and the pleasure he expressed at our visit soon made us feel at home. He gave us supper, and provided us with comfortable beds. Shortly after our arrival, another party was welcomed, consisting of three ladies and a gentleman of the mission, who were in like manner provided for, without apparent inconvenience.

Mr. Williams seemed to me exactly what a missionary ought to be, pious, cheerful, and meek, although resolute. His whole thoughts seemed to be directed to the welfare of those whom he had undertaken to enlighten. His views were pointed not only to the diffusion of the Gospel, but also to the extension of the useful arts, and whatever could tend to elevate the condition and eradicate the vices of the natives.

After a long consultation, Mr. Williams came to the conclusion that there was no reason for fearing that the arrest of Opotuno would be the cause of any injury to the whites or missionaries. He said that Opotuno was a blood-thirsty fellow, and that it would be doing the islands a great service should he be removed; that there was not a shadow of doubt that he had murdered twelve whites, of whom several were Americans; that he was a determined enemy to the whites, and in the habit of saying that he would omit no opportunity of killing all who might come within his power. Mr. Williams, however, doubted the success of any attempt to take Opotuno, unless it was made under disguise; for upon the approach of all men-of-war, and during their stay, he lived in the mountains of Savaii, where it was impossible to find him.

The situation of Mr. Williams's cottage is pretty; it stands within a few rods of the beach, and is surrounded by a nicely-dressed lawn, on which are several fine trees; the background is filled up with cocoa-nut, bread-fruit, and a variety of other trees. Near by is the tiny ship-yard of his son, Mr. John Williams, who was taken by his father to England, and there taught all the mechanical trades. He has returned thence within a few months, with his wife, and by the aid of a few natives has already built himself a vessel of about twenty-five tons' burden, which he proposes to employ in trading among these islands.

The next day we returned to Apia. On our way we stopped at Sagana for the purpose of visiting Malietoa, the principal chief of the Malo or conquering party.

I have rarely seen a place where more attention is paid to cleanliness than at Sagana. A similar regard to neatness prevails in the walks around the village, and in the cultivation of the taro, melons, and bananas, which is carried on in the immediate vicinity. The paths leading to these cultivated grounds pass through fine shady groves. The preservation of the broad walks and paths appears to be rather an amusement than a labour to the villagers.

Here Malietoa was seen in his domestic circle, with his wives and children around him. I found him in a small house, enjoying the afternoon breeze, with his daughter playing about him. She was about fifteen years of age, and decidedly the prettiest girl we had seen in this group; her name was

Emma, and she was as intelligent as she was pretty.

The chief, whose hair was white with age, made us warmly welcome, and wished to go over to his fale-tele to receive us as became chiefs, but this I would not permit. His wives busied themselves in getting things in order, very much after the fashion of other parts of the world, when a stranger arrives unexpectedly. In a few minutes the fine mats were laid, the stools, calabashes, and straw put away. A clean shirt was slipped over the old man's head while my attention was called off to another object.

Malietoa's house was not larger than the others in the village, and exhibited no other difference from them than in containing a dais or platform, occupying about a third of it, and raised about a foot higher than the rest of the floor.

When the domestic arrangements were completed, large bunches of bananas and fresh cocoanuts were brought in and presented to us. Mr. Wilson was an excellent interpreter, and by his aid I had a long and agreeable talk with the old chief, who, when his wars were touched upon, appeared full of fire and animation.

Messrs. Dana and Couthouy visited a lake called Lauto, which lies to the westward of this pass, and in the centre of an extinct crater. The edge of the crater was found to be two thousand five hundred and seventy feet above the sea, and the descent thence to the water of the lake is one hundred and twenty feet. These gentlemen succeeded in obtaining a line of soundings across the lake, by cutting down trees, and forming a raft of them. They found the depth in the middle nine and a half fathoms, decreasing thence gradually in all directions to the shore. The form of the lake is nearly circular, and it has a subterranean outlet. The hill in which this crater is situated is conical, and there is a low knoll at some distance to the south of it, which is the only other elevation in the neighbourhood above the general height of the ridge.

The border of the crater is clothed with the usual forest foliage of these islands, which, however, exhibits here more than usual beauty, being decorated with the finely-worked fronds of the arborescent ferns, in widely-spread stars, and the graceful plumes of a large mountain palm.

The poets of the island have appreciated the beauty of the place, and allude to the perpetual verdure which adorns the banks of the lake, in the following line :—

"Lauuto'o e le to' a e lau mea."

"Lauto, untouched by withered leaf."

There is a legend connected with this lake, that has more of poetic beauty and feeling than one would have supposed to exist among so rude a people. It is as follows.

Many generations since, during a war between Upolu and Savaii, a number of war-canoes from the latter island crossed over to attack Ulatamoa (or, as it is now called, Ulumoenga), the principal town in the district of Aana. At the time of their approach, two brothers, To'o and Ata, chanced to be paddling their canoes in the channel between the reef and the shore, and before they could reach the land were attacked by a party of Savaiians.

After a valiant defence, Ata was overpowered and slain, while To'o narrowly escaped the same fate.

Overwhelmed with sorrow at the loss of a brother whom he tenderly loved, To'o retired to a neighbouring mountain, and burying himself in the darkest recesses of its forests, made them resound with his bitter lamentations. At length in his wanderings he came to the summit, where, stooping down, he scooped out with his hands a vast hollow, and, leaning over its brink, suffered his tears to fall in until it was filled. The lake thus formed has ever since borne the appellation of Lauu-to'o.

The regard of To'o for his brother's memory was further evinced by his adoption of Ata's name, conjoined to his own as his family title, and the appellation of Toomata, a contraction of To'o-ma-ata, is retained by his descendants, who are still chiefs of note in Upolu, and from whom the tradition was derived.

The lake of Lauto is regarded with superstitious dread by the natives, who believe it to be the abode of the spirits, who, in former times, were regarded with great veneration, and worshipped. These were supposed to inhabit the waters of the lake, in the shape of eels, as thick as a cocoa-nut tree, and two fathoms long. The attempt of our gentlemen to explore it was looked upon as such a profanation that their native guides left them, and regarded them as persons doomed to accident if not to destruction. The eels were represented as so savage and fierce that they would bite a person's leg off. No eels, however, nor any other fish, were seen in the lake.

In the neighbourhood of the crater no rock was observed in the place, nor any light scoria. Only a few fragments of stone were scattered about.

The cone of the crater of Lauto is flatter than the others of the same character that were visited, and particularly than that of Mount Tofua. This is the westernmost of them all, and lies behind Fasootootai. It rises so boldly, that it is seen distinctly from the sea. This, with all the other craters, are situated upon the central ridge, and the most conspicuous of those which remain, are Siusinga, which lies behind Sagana and Faliata. There is also one upon Mount Malata, in the rear of Fangaaloa, and another on the southern side of the island, near Salomana.

In traversing the island of Upolu, many deep gorges were seen, in which there were waterfalls. One of these cascades was measured, and found to be seven hundred and fifty feet in height, so that the whole of the water was dissipated in spray before it reached the bottom. These glens are wild in the extreme, and beautiful, from the great variety and peculiar character of the foliage with which they are clothed.

The south side of Upolu, like that of Tahiti, is much more luxuriant than the northern, which is owing to a like cause, namely, that it receives more moisture from the prevailing winds.

The wild orange grows every where in great abundance, and in some places the road was literally strewn with the fruit which here equals the cultivated variety in size.

In pursuance of the resolution I had adopted, Captain Hudson set out on the 30th of October, with the boats of his ship, for the purpose of attempting the capture of Opotuno. This noted

chief of the neighbouring island of Savaii, had, as has been stated, committed several murders and other outrages. Among other acts, he had taken possession of two boats, sent on shore by the whale-ship William Penn, Captain Swain, of Nantucket, killing the chief mate, and the two boat-steerers. The third officer of the vessel was also wounded, and left for dead upon the beach; he was, however, picked up by some females, who removed him to a hut, where, through their kind attentions, he recovered. He did not, however, rejoin his ship, but remained for some time on the island.

The most surprising part of the history of this transaction is, that Captain Toby, of the ship Swift, of New Bedford, afterwards purchased these boats from Opotuno, although he knew that chief had obtained them by murdering this captain's own countrymen.

Captain Hudson fell in with the Flying-Fish, on his way to Savaii, and took her with him, to aid in carrying on the stratagem by which the watchfulness and suspicions of the wary chief were to be lulled to rest.

On their arrival off the part of the island where Opotuno usually resides, they made for the shore under pretence of surveying, and reached the village of Setipetea, which adjoins that where he dwells. We afterwards learned that no sooner had the boats got within the reef, than he prepared for his flight to the mountains. The news of the capture of Tuwai, and the re-appearance of boats from a vessel (the Peacock) which had passed about ten days before, served to put him on the alert. He had, however, become so daring that he did not at once fly, but awaited more decided indications of hostility; and when Captain Hudson, accompanied by only two men, passed through his village, having left his boats only a mile distant, he entertained the intention of shooting him. He had actually cocked his gun for this purpose, when one of his followers advised him not to fire, as he would bring great trouble on the island if he shot a chief. When the boats' crews afterwards entered Opotuno's village, the inhabitants showed much alarm, but the chief was missing. It was therefore considered advisable to make no hostile demonstrations; as no good purpose could have been effected by following him to the mountains, where it would have been impossible to apprehend him.

The boats therefore returned, and although without succeeding in the main object of the expedition, something was gained in reviving his apprehensions of being captured. His village was not destroyed, because to do so would have been no injury to him, but only distressing to its poor inhabitants. He would have laughed at the idea of his being punished by the burning of their habitations, as it is said he did so when an attempt was made, during a previous cruise of the Vincennes, by her commander, who visited his village, and burned two or three of his houses.

The impunity he has hitherto enjoyed has served to render him audacious, and it is not long since he put to death an American seaman, who had been left sick in his charge.

Opotuno is detested by his brother chiefs, not only for his aggressions upon foreigners, but on his countrymen also. Only a short time before our arrival, he seduced and carried off the wife of Vavasa. This act was considered so outrageous,

and was so deeply resented, that we were informed a war was only prevented by the near relationship of these two chiefs. The Samoans regard with horror the idea of those connected by ties of consanguinity fighting against each other.

Opotuno is not only related to Vavasa, but is the adopted son of old Pea of Manono, a connexion which was not without its effect in averting hostilities.

On the 4th of November, a fono was held, according to the appointment made with Malietoa, in the fale-tele of Apia. All the officers who could be spared from the ships were ordered to attend. Old Pea, the chief of Apia, seemed to be the master of ceremonies on the occasion. Clean mats were spread for the chiefs, and chairs and benches borrowed from the missionaries' houses were placed for us, opposite to them. All the highest chiefs of the "Malo" party were present, except Pea of Manono, and two minor chiefs of Savaii. Malietoa presided. His whole demeanour was dignified, composed, and thoughtful. His personal appearance has already been spoken of, and the form of his head, his white hair, and dignified bearing, again reminded us of General Jackson. He is slender and tall, although somewhat bent by age. It was to be regretted that his dress was ill chosen, and rather detracted from the respect he would have inspired had he appeared in his native garb; he wore pantaloons, a round jacket, and a pink and white striped cotton shirt.

Tooa, the nephew of Malietoa, who acted as spokesman, and whose countenance betokened the interest he felt in the business, attracted attention in the second degree. Then came Mole, the son of Malietoa, Maletan, their general, the most renowned leader in the war of Aana, and Tai-malelagi, Malietoa's brother. There were also present a number of chiefs of less distinction, among whom was old Pea of Apia; although he was compelled to take his place, yet he did not fail to be conspicuous, not merely by his personal appearance, but by his officiousness.

The proceedings were conducted with great ceremony, but there was a marked difference between this fono and the solemnity of our Indian councils. The Samoan assembly appeared more quiescent, the proceedings exhibited more refinement, and the customs partook of an Asiatic character.

In all such meetings a rigid order of precedence, that seems well understood by every one, is established; all conversation is carried on in a whisper; no one is seen standing in the presence of a superior, and sitting with outstretched legs is considered indecorous. Articles were never passed over a person, and no native ever ventured to come in contact with a chief.

The background on the side of the natives was filled up with inhabitants from different parts of the island.

On the opposite side of the building, the officers of the squadron and the missionaries formed a numerous group. Among the latter was our friend Mr. Williams and his son, whom I had appointed to act as consul until the pleasure of the government of the United States was known, and whom it was intended to present in this capacity to the meeting, in order that he might be recognized formally by the chiefs; Messrs. Heath, Mills, and Wilson were

also present ; and Mr. Heath, who was believed to be best acquainted with the Samoan language, was kind enough to officiate as our interpreter.

The object I had in view in requesting the fono to be called, was to procure the formal enactment of laws and regulations which might secure to our whale-ships a certainty of protection and security, and at the same time to prevent impositions being practised by them upon the native government, of which, as has been stated, complaint had been made. To the breach of these laws it was intended that the penalty of a fine should be attached, in order to secure obedience to them.

The meeting being organized, I in the first place presented Mr. John Williams, as the consul of the United States, whom the chiefs recognized as such with great willingness and satisfaction.

We then entered upon the discussion of the proposed regulations, which were adopted in a form which promises to be mutually beneficial, being highly advantageous to them, and at the same time insuring a certainty of security to American vessels that may visit the islands they could not before enjoy.

One of the articles referred to the redress of injuries committed by the natives, and provided for the punishment of those who had been guilty of crime, by giving them up.

Wishing to rid these islands of a pest both to natives and foreigners, I now, as authorized by the spirit of this article, made a demand for the murderer Opotuno, and stated that a compliance with this would settle all disputes between us. This demand produced a great sensation among the chiefs, and much excitement prevailed in the meeting. Malietoa, in reply to it, expressed himself strongly in detestation of the character of Opotuno, and stated that his capture by us would give him satisfaction, but argued that the regulations now enacted could not apply to his past misdeeds, and that he would only come within its operation should he be again guilty of like crimes. He in short pleaded that the law could have no *ex post facto* bearing.

He next argued, that the inevitable consequence of any attempt on their part to seize Opotuno, would be to involve the whole group in a civil war, for he was not only a powerful chief himself, but connected with others still more so ; and that a civil war was that which he most desired to avoid. He however went on to say, that so far as he was concerned, no opposition would be made to any steps on our part to secure one whom they knew to be guilty of great outrages ; but he could not in any way assist.

In conclusion, he stated that the islands had, until within the few years that had elapsed since he obtained the command, been the seat of continual wars ; that they were now aware of the advantages of peace, and had a just sense of the benefits in consequence enjoyed ; and declared that he should do all in his power to preserve the blessings of peace, and maintain the unwanted state of prosperity. For these blessings he ascribed high acknowledgments to the missionaries, saying that he hoped the Samoan people would in due time profit by the lessons taught them, and adopt all the improvements of the Papalangis.

Few persons have ever inspired me with more respect than this old chief, and his sentiments were delivered by Tooa in an impressive manner.

It was not my object to drive them to extremities, or to press for an instant decision. I also wished to give them time to reflect upon and canvass the regulations just adopted, and perceived that they began to be fatigued with the length of the conference. I therefore proposed that before they gave me a final answer in relation to Opotuno, they should take time for consideration and reflection, for which purpose I suggested that the meeting should be adjourned until the next day, which was accordingly done.

On the 5th November we again met, when the arguments urged the day before were a second time brought forward, and the necessity of their taking measures that should effectually prevent outrages upon the persons and depredations on the property of white men, strongly set before them. They met these arguments with complaints against the white men who had come to the islands or been left upon them, saying that many of them were bad fellows, and had caused much trouble. I at once told them that if they would bring these turbulent persons to me, I would take them away from the islands, and that the laws they had now assented to, were such as would secure their punishment for any future offences.

In this state of the proceedings we were favoured with a set speech from the official orator of Malietoa, an old blind chief, who stood up, supporting himself by leaning with both hands upon a long stick. In this attitude he poured forth such a torrent of words as few of us had ever before heard ; and if eloquence be composed of elocution and a ready flow of language, he was fully entitled to the praise of possessing it.

As we learned from the translation of this speech, its object was to urge the necessity of going to war, in order to secure the murderer, Opotuno, for the purpose of delivering him up. This, however, was intended only for effect ; for these, as we well knew, were not the real sentiments entertained by Malietoa.

This speech was made up of short and distinct sentences, was spoken in a loud voice, and contained many repetitions.

However contrary this speech may have been to the cool determination of Malietoa, it seemed to meet the popular feeling ; and there is no saying what might have been the consequence, had not the missionaries contrived to check the outburst. It was now proposed that the fono should receive and publish a document, offering a large reward for the seizure and delivery of Opotuno, dead or alive. This proposition was a new source of excitement, and old Malietoa exclaimed with emphasis, "Give me the paper !—I will put it upon my house, where all the world shall see it."

A copy was then nailed on the pillars of the council-house, which Pea was made responsible for, and others were prepared and distributed to the several chiefs.

The meeting was then dissolved, and every one present evinced the greatest satisfaction that the whole of the business before it had been concluded in so satisfactory a manner.

The island of Upolu is divided into three districts, viz. Atua, Tua-Masanga, and Aana. Each of these was formerly governed by a separate and independent chief, styled Tui. Atua occupies the eastern end of the island, which extends as far

as the town of Lanu; Tua-Masanga is the middle division, and includes the towns of Siuna and Safata, on the southern shore; Aana lies west of this, and comprises the remainder of the island. The first of these districts is of the greatest extent, the second is at present the most powerful, and the third is the most fertile. The union of these districts under one general government, in which the island of Savaii is also included, is a late event. Previous to 1830, this island had suffered from the usurpation of a chief of Manono, called Tamafago, who was a great tyrant, but who had contrived to cause his person to be considered as sacred, and to impress on his countrymen the idea that it would be sacrilege to disobey, hurt, or even to touch him. After the conquest of a rival district in Savaii, he assumed the style of king of that island, "O le Tupu o Savaii," a title which Malietoa now enjoys, but without deriving from it any power.

Tamafago not only ruled Savaii with royal and divine attributes, but obtained a complete ascendancy over Upolu, where he compelled all to give up their property to him, and to yield the women of all classes to his desires.

Finally, his tyranny and excesses exceeded the bounds of patience, and the people of Aana rose against him, conquered, and put him to death. From this arose the war of Aana, which will be again spoken of; for the chiefs of the other islands considered themselves bound to avenge the death of Tamafago. The people of the other districts of Upolu were not united in the support of their neighbours of Aana, who had made themselves almost universally odious by their haughty bearing. The war was a bloody one, and resulted, after a continuance of two or three years, in the entire defeat of the people of Aana, by those of Manono, who expelled them from their district, and forbade their return to it on pain of death.

This fertile region remained entirely unoccupied until the arrival of the missionaries; but when the Christian influences of their preaching began to be felt, the decree that condemned Aana to solitude was annulled, and the few of its former inhabitants who had escaped slaughter, were permitted to return to their ancient homes.

The island of Manono, whose inhabitants exerted such an influence in the closing scenes in the war of Aana, is situated within the sea-reef of Upolu. It contains eleven hundred inhabitants, and is the residence of the chief Pea, who must be distinguished from the inferior personage of the same name who resides at Apia. This island is covered with forests throughout its whole extent; its circumference is about four miles; and it is the station of one of the English missionaries.

In spite of its small extent and scanty population, Manono is identified with the political history of all the other islands of the group; for, during the reigns of the two Tamafagos, it held supremacy over them. The reason of its acquiring and exercising this political supremacy, is principally to be ascribed to the possession by its inhabitants of the small island of Apolima, which they used as their "olo" or citadel. To this retreat, inaccessible except at a single point, the inhabitants of Manono were in the habit of retiring when pressed by too powerful an enemy, and when his rage had spent itself, they thence returned to their home with undiminished numbers.

This natural fortress lies between Manono and Savaii, and soundings extend to it both from the shores of Upolu and Savaii. The coral reef attached to it is but small.

Apolima, on the most cursory examination, is evidently the crater of an extinct volcano. Perpendicular cliffs rise from the sea around its whole circuit, except at a single point on its northern side. Here the lip of the crater is broken down, and admits the water of the sea into a small bay, which affords a safe harbour for boats. The entrance to this is so narrow as to admit no more than one boat at a time, and is dangerous whenever there is any surf. It may, therefore, be easily defended. There is only one other point on the island where it is possible to effect a landing, namely, at a small height to the westward of the bay, and here it can only be done when the water is perfectly smooth. But an enemy landing here would have made no progress, for before the interior can be reached from this point, the steep and precipitous rocks remain to be climbed.

The highest point of Apolima is on its south side, where it is four hundred and seventy-two feet above the sea. The perpendicular cliffs which face the sea are of course bare of vegetation; but with this exception the whole surface is covered with cocoa, bread-fruit, and other trees, or with plantations of taro, yams, &c.

In the centre of the island is a village of about twenty houses, and the permanent population consists of no more than about seventy-five persons. The people are evidently jealous of the maiden reputation of their natural fortress, and showed much concern when we visited it, which the women even manifested by shedding tears.

While we were engaged at Tutuila and Upolu, the survey of the island of Savaii was performed by Lieutenant-Commandant Ringgold, in the Porpoise. It has already been mentioned that this vessel had been detached for that purpose, and that Dr. Pickering, from the Vincennes, had gone in her. The brig first touched at Sapapale, the residence of the Rev. Mr. Hardie, who gave them a cordial welcome, although much surprised at so unusual an arrival.

Many of the natives collected to view the white men, of whom so many had never been seen together on the island. In their remarks, they, among other things, praised our people for their beauty.

Dr. Pickering and Lieutenant Maury were landed here, to remain upon the island while the brig was employed in surveying it; the former to examine its productions, the latter to observe the tides. Mr. Hardie kindly afforded them accommodations in a new house he had just been erecting.

Lieutenant-Commandant Ringgold, after landing Dr. Pickering and Lieutenant Maury at Sapapale, proceeded around the island for the purpose of surveying it. He began with the examination of the large bay of Paluale, near the eastern point of the island. Here there is a missionary station, under the superintendence of Mr. McDonald, who had resided there for about six months, with his wife and children. The natives are peaceable, but are described as inquisitive and rude. The village is prettily situated, and is approached through a boat-passage in the reef.

The south side of the island was found rocky and

iron-bound, with a heavy surf breaking on it. Towards the western end of the island, the rocks around the points were worn into cavities, and the sea rolling into them produced innumerable spouts of water.

Near the north-western point of Savaii is the large and beautiful village of Felialupo, with a snug little cove for boats. This place is under the charge of a Tonga missionary. The natives were friendly, and disposed to exchange their poultry and fruit, for tools, cloth, &c.

The next inlet on the north side, was that of Asau. This was supposed to be the only place where there was any probability of finding a harbour. But the hope of such discovery was frustrated, for there is only a small and shallow entrance through the reef, and within the reef the shore forms an extensive flat.

Proceeding on the survey, the brig arrived off the north point of the island, and reached the bay of Mataatua, which was examined, and found to afford a good anchorage. The brig was anchored here, and the harbour surveyed. This is the only harbour in the island where a vessel can anchor with safety, and here supplies of hogs, poultry, and vegetables, may be had in abundance; wood and water are also easily obtained, the latter from copious springs near the beach.

A great difference in form, physiognomy, and manners, from those of the adjacent villages, was observed here, as well as a change in the character of many articles of manufacture. The war-clubs and spears were of uncommon form, and neatly made.

This bay is surrounded by a white coral beach. The natives appeared harmless, but manifested great curiosity. The women are more gracefully formed than at the other islands.

The native missionaries appeared to exercise much influence over them, having put a stop to many of their former evil practices.

On the 24th, the brig again arrived off Sapapale, after an absence of nine days. Here they were joined by Dr. Pickering, and Lieutenant Maury, and found the old chief Malietoa and his son Mole, who were extremely courteous. On the former being presented with some articles, he remarked, that "our property was very good, but our goodwill better."

Dr. Pickering engaged natives to accompany him into the interior, and to visit the Mu or burnt district. Preparations for the journey were made in advance, and among other things, it was stipulated that there should be only two meals a day,—one early in the morning, and another in the evening. The first day, however, was to form an exception.

Mr. Hardie accompanied the party for a few miles, and they soon after their departure met a native who was styled "the Lord of the Forest." The party were desirous that this man should accompany them, for his appearance promised more than that of the others, and it seemed it was necessary to obtain his permission before they could enter the forest. In times of scarcity, his domains become of great value, in consequence of the quantity of wild yams they yield. This person agreed to accompany them, and they proceeded along a good path through cultivated grounds of taro, dracæna, &c. Mr. Hardie, before leaving the party, endeavoured to make the natives understand the nature

of Dr. Pickering's errand; the latter was unable to make himself understood by them. They had not proceeded far before they came to an uninhabited house, where the natives stopped for the purpose of preparing dinner, the cooking of which occupied three hours! The day was in consequence well advanced before they again started, and at about 4 P. M. they reached an open shed, about two miles from the last stopping-place, where the natives concluded to halt for the night. The occupants, who consisted of two elderly women and a young man, were dispossessed, and the shed was enclosed by hanging up leaves of the heliconia, which resemble those of the banana. They then prepared some excellent cocoa-nut pudding, and heated some cocoa-nut milk in the shells. This beverage is usually taken by them every morning and evening; the natives all saying grace before their meal, and prayers before they went to rest. It was late the next morning before Dr. Pickering could get the party in motion, and pursuing their route, they soon overtook the Lord of the Forest, who had preceded them, and was employed in cutting a path through the woods, although that already made might have been easily passed through. No inducement could make them change their purpose, and they continued to work at their turnpike, lopping off large branches, beating down ferns, &c. After some time, they reached a rising ground, which they found to be on one side of a crater, about a thousand feet above the sea, and seven miles inland.

Dr. Pickering now concluded that it was a hopeless task to attempt to penetrate into the interior with such guides, and determined to return, which he accordingly did. He found the rest of his party a mile in advance of their previous encampment, where they had built for themselves a fine house, and each man had collected two large baskets of yams for provisions. This was their stopping-place for the night, and among other cares for the doctor's comfort, they constructed for him a native pillow, formed of a piece of bamboo, with legs lashed to it about three inches high.

The natives were in high spirits during the evening, talking and laughing immoderately. They succeeded in getting off by nine o'clock the next day, and reached the coast about noon.

During the stay of Dr. Pickering and Lieutenant Maury on this island, they were objects of great curiosity; and whenever they walked out they were followed, not only by boys, but grown men, who did not, however, offer to molest them in any way. When they passed through the villages, all the inhabitants, not excepting the scholars from the schools, came out to look at them. The latter, however, did not abandon their books, but retained them in their hands; for all, whether young, middle-aged, or old, are anxious to learn, and their perseverance, as in other parts of the group, is astonishing.

Dr. Pickering here witnessed the taking of fish in a different mode from that practised on the other islands. Application was made to the chief, and through his influence a meeting of the head men of the town was called, and a fishing expedition agreed upon. The net, if it could be so called, was prepared, and in the course of two days every thing was ready. The net was a kind of chevaux-de-frise, made of the leaves of the cocoa-nut tree, split and

wound round a line, and was little less than half a mile in length. It was more formidable in appearance than in reality. This net was taken out at high water to the coral reef, in three pieces, then fastened together, and thus made to enclose a large extent of water. This space was gradually contracted by doubling up the net, which answered the same purpose as the drawing of a seine. The fish did not attempt to pass it, and were thus driven towards a certain point, where a sort of sack of matting had been placed for them to enter. As the fish were gradually enclosed by the mat, and the tide fell, the scene became an animated one. Men, women, and boys, to the number of two or three hundred, were eagerly engaged in picking up or catching the stragglers as they were seen leaping up; the whole area seemed alive with fish, jumping in every direction, some over the heads of the natives, and thus escaping, while others leaped into hand-nets. About a canoe-load was caught, comprising thirty different kinds of fish, some of which were six or eight pounds in weight, but the majority were smaller. The haul was considered an unsuccessful one, which was attributed to some misunderstanding and mismanagement among the natives, by which a large stone fell on the net, and allowed many of the fish to escape.

Savaii is the most western island of the Samoan Group, and is also the largest, being forty miles in length and twenty in breadth. It is not, however, as populous, or as important, as several of the others. It differs from any of the others in its appearance, for its shore is low, and the ascent thence to the centre is gradual, except where the cones of a few extinct craters are seen. In the middle of the island a peak rises, which is almost continually enveloped in clouds, and is the highest land in the group. On account of these clouds, angles could not be taken for determining its height accurately, but it certainly exceeds four thousand feet.

The interior of the island is rarely entered, even by natives, and has never been penetrated by strangers. The only settlements are upon the shore, along which the natives always journey, and there are no paths across it.

Another marked difference between Savaii and the other large islands, is the want of any permanent streams,—a circumstance which may be explained, notwithstanding the frequency of rain, by the porous nature of the rock (vesicular lava) of which it is chiefly composed. Water, however, gushes out near the shore in copious springs, and when heavy and continual rains have occurred, streams are formed in the ravines, but these soon disappear after the rains have ceased.

The coral reef attached to this island is interrupted to the south and west, where the surf beats full upon the rocky shore. There are, in consequence, but few places where boats can land, and

only one harbour for ships, that of Mataatua; even this is unsafe from November to February, when the north-westerly gales prevail.

The soil is fertile, and was composed in every part of the island that was visited, of decomposed volcanic rock and vegetable mould.

The Porpoise, having taken Dr. Pickering and Lieutenant Maury again on board, set sail for Tutuila, for the purpose of joining the Vincennes, and beat to windward along the south side of Upolu. During this passage many of the crew became sick, which rendered it necessary to stop for a few days at Pago-pago, in order to recruit them. Here they all speedily recovered, except one man, named David Blodget, who died. The disorder was attributed to the dampness of the vessel.

The delay in the arrival of the Porpoise at Apia caused me to send the Flying-Fish to Tutuila, whence they both returned to Apia.

Previous to sailing, at the pressing instance of the chiefs, I ordered the marines and small-arm men of the squadron, in all about one hundred and fifty, to be sent on shore, with their music, for exercise. They had been well drilled to act on shore should occasion require, and were provided for the occasion with blank cartridges. The natives from far and near were collected to witness the review, and few scenes that occurred during the voyage were as amusing as this. The old and young were equally delighted, and it was ludicrous to see them endeavouring to imitate the soldiers in their marches and countermarches. They were not satisfied unless the drummers were constantly beating, and were particularly delighted with the bass-drum. The firing occasioned some alarm at first, but when they saw it did no harm, they became reconciled to it, although even to the last they would scamper off to a distance at each discharge.

During our stay in this group, we experienced two slight shocks of earthquakes; their occurrence here is not unusual, but there is no account of any damage having been done. Their motion is generally tremulous and horizontal; one, however, has been experienced of a wavy description. They are said by the foreigners often to produce the sensation of sea-sickness.

On the 10th of November the whole squadron was assembled in the harbour of Apia, after having been actively engaged since the 8th of October in examining the different islands, and making surveys of their coasts and harbours, &c. This work was all expeditiously and well done, with the exception of the south side of the island of Upolu, which was imperfect in some respects; it was consequently re-surveyed in the following year, and the charts finished. Besides the surveys, full series of experiments were made in magnetism, and extensive collections obtained in natural history, botany, &c., the islands being traversed by parties in several directions for this purpose.

CHAPTER XV.

THE SAMOANS.

GEOGRAPHICAL POSITION OF THE SAMOAN GROUP—ITS HARBOURS—TIDES AND CURRENTS—ITS CLIMATE—SIZE OF THE ISLANDS—SOIL AND PRODUCTIONS OF THE GROUP—ITS CULTIVATION—QUADRUPEDS—BIRDS—REPTILES—FISH—PRODUCTS AVAILABLE FOR COMMERCE—LANGUAGE OF ITS NATIVES—THEIR DISEASES—THEIR GENERAL APPEARANCE—THEIR NATIONAL CHARACTER—LABOURS OF THE MISSIONARIES—NATIVE MISSIONARIES—SELECTION OF THEM FOR THE NEW HEBRIDES—POPULATION OF THE ISLANDS—RELIGION OF THE HEATHEN—THEIR IDEA OF THE CREATION—OF A FUTURE STATE—THEIR OMENS—THEIR SUPERSTITION—THEIR DANCES—THEIR MUSICAL INSTRUMENTS—THEIR AMUSEMENTS—THEIR BIRTHS—THEIR MARRIAGES AND COURTSHIP—THEIR ADOPTION OF CHILDREN—THEIR BURIALS—THEIR MOURNING—THEIR MANNERS AND APPEARANCE—THEIR DRESS—IMPROVEMENT IN THE ANCIENT DRESS—TATTOOING—THEIR MANUFACTURE OF TAPA AND MATS—SAMOAN CANOES—BOAT-SONG—HOUSES OF THE NATIVES—THEIR LIGHTS—THEIR FOOD—THEIR HABITS—THEIR MALANGAS—THEIR PUNISHMENTS FOR CRIMES—THEIR WARS—THEIR OLOS—THEIR PEACE-MAKING—CLASSES OF SAMOAN SOCIETY—ALLOTMENT OF LANDS—MODE OF GOVERNMENT—DESCENT OF CHIEFTAINSHIP—CEREMONIES AT THE FONOS.

DURING the time that the squadron remained in the Samoan Group, all the islands of which it is made up were visited; not only were the examinations, spoken of in the two preceding chapters, made, but their shores were minutely surveyed by boats; the meteorological instruments were duly registered; astronomic and magnetic observations made, and a full record of the tides kept. We have thus obtained a large amount of information, which will be more easily intelligible in a condensed form, together with a great number of facts in relation to the aboriginal population, which may be made more interesting when applied to give a general view of the habits, character, and state of civilization among the natives, than if dispersed in isolated remarks in the accounts of the separate tours in which it was obtained.

The group lies between the latitudes of $13^{\circ} 30'$ and $14^{\circ} 30' S.$, and the longitudes of 168° and $173^{\circ} W.$ The islands, as has been seen, agree in the general character of being of volcanic structure, and having coral reefs; differing, however, in the modifications of these formations, which have been from time to time described. The harbours are usually situated within the reefs, but Tutuila is an exception to this rule, by the possession of the deep land-locked basin of Pago-pago. This is, of all the ports, the one best adapted for the refitting of vessels; but Apia, in Upolu, in the latitude of $13^{\circ} 48' 56'' S.$, and longitude $171^{\circ} 41' 9'' W.$, is not so difficult of egress, and in consequence of its proximity to the fertile district of Aana, the most convenient for vessels seeking only a temporary anchorage and refreshment.

The approach to Pago-pago, and the other harbours of the Samoan isles, is not difficult; and as the soundings extend in some places for a distance beyond the reefs, vessels may drop an anchor in case of necessity.

The flood tide among these islands sets to the westward; beyond its influence, on the southern side of the islands, a current generally prevails to the eastward, while it runs westward on their northern side. Vessels, therefore, when beating to windward, would find it to their advantage to keep on the southern side of the group, where

there is not only a favourable current, but where the winds would be found more regular, and calms less frequent.

Tidal observations were made contemporaneously at Tutuila, Upolu, and Savaii; these show a regular difference of one hour in the tidal wave between Tutuila and Upolu; the tide at Savaii appears from the record to have been more irregular than at the other islands, which may in part be attributed to the extent of the reef, but I also fear that there may have been a want of due attention to the observations.

The climate of these islands may be termed variable, and there is much bad weather, particularly during the winter months, when long and heavy rains, attended at times with high winds and northerly gales, are frequent. Destructive hurricanes also occur, and of these one is still recollected which blew down the bread-fruit trees, and destroyed many of the houses.

The air is more moist than that of the Society Islands, and the vegetation in consequence more luxuriant. Thunder and lightning are often experienced, but during the summer months light winds and calms are the prevailing characters of the climate.

Some of our gentlemen made the remark, that to judge from the time at which the bread-fruit was gathered, there must be a great difference between the seasons of this island and Tahiti; for when we arrived at Tutuila, that product was ripe and in abundance, although when we left Tahiti, only a few days before, it was unripe and not to be had. The same remark was made in relation to the vi-apple (*spondias dulcis*). But, by comparing the voyages of Cook and Wallis, it would appear that the time of the year at which the bread-fruit is in season at Tahiti is not constant, for both these navigators found it in perfection, although they visited that island in different months. If there be a difference between the time of the ripening of the bread-fruit in the Society Islands and this group, the greater moisture and higher mean temperature of the Samoan climate will account for it.

The islands of the Samoan Group contain one

thousand six hundred and fifty square miles, which are divided as follows, viz.:

Savaii	700
Upolu	560
Tutuila	240
Manono	9
Apollima	7
Manua	100
Oloosinga	24
Ofofo	10

The soil of all the islands is rich, and arises chiefly from the decomposition of volcanic rocks. At Tutuila, it was remarked that the vegetation was luxuriant, and the trees of large growth. At Upolu the forests seemed more sombre than those of Brazil, although the same kind of growth appeared to prevail.

The trees do not branch out until near the top, which renders it difficult to obtain botanical specimens. The trunks are covered, and even the summits of the trees sometimes overgrown, with the leaves of the scandent flagellaria (*freycinetia*), a climbing piper, and other vines, as hoyas, convolvulus, &c. The lower part of the trunks are enveloped with ferns, of which there are many varieties, and with some species of pothos, which give the whole ground a matted or woven appearance.

The woods in the interior of the islands are very thick, and often composed of large and fine trees; among them are, tree-ferns, a species of banyan, pandanus, and several species of palms. Among other plants a species of *cerbera* was observed, with beautiful clusters of large and odorless white flowers, which yielded a quantity of white viscous sap, that our botanist, Mr. Rich, thought might be manufactured into caoutchouc. On the whole, the species of trees are much more numerous than at Tahiti, and the vegetation in consequence richer and more varied. The woods, however, are not enlivened by showy flowers, and the few of these that are seen are of a white or grayish hue, which is to be ascribed to their being but little exposed to the rays of the sun, in consequence of the umbrageous foliage. Many of the flowers seen on the ground were unknown to our botanist, as were several fruits.

Among the trees which have been named, that which struck us as most remarkable was the species of banyan (*ficus religiosa*), called in these islands *ohwa*. Some of these were seen, whose pendant branches had taken root in the ground to the number of thousands, forming stems from an inch to two feet in diameter, uniting in the main trunk more than eighty feet above the ground, and supporting a vast system of horizontal branches, spreading like an umbrella over the tops of the other trees.

The bread-fruit is the most abundant of all the trees, and grows here to a large size; the vi-apple, the cocoa-nut, and the wild orange are also found in great numbers; and at Tutuila a large lime-tree was seen in full bearing, which was said to have been planted before the arrival of the missionaries.

Among the most singular of the vegetable productions is the stinging tree, of which the natives are much afraid; for if its leaves be touched an eruption is produced, particularly if the skin be wet. Its leaf is cordate, but quite smooth.

The arborescent ferns are not as numerous as at

Tahiti, but grow to a larger size. The palms give a character of luxuriance to the country, from the variety of their foliage. Rattans ninety feet in length were seen running over the trees.

Bamboos and the wild sugar-cane were very common; the latter is used in thatching houses: the wild ginger also abounds.

Of the wild nutmeg (*myristica*), two species were seen, which are small trees, and likely to be passed without notice, were it not for the peculiar manner in which branches grow out of the trunk, which is in whorls, at regular intervals, like the white pine (*pinus strobus*) of our Northern States.

It was remarked that the character of the vegetation approached more nearly to that of the East Indies than of the Society Islands, and the leafless acacias were the type of those we afterwards saw in New Holland; but there are some plants which appear peculiar to these islands.

Many of the trees we have named, as well as other plants, are objects of cultivation; but the ground cleared for this purpose does not extend far from the coasts, near which all the villages are situated.

To clear the land, the bark is burnt off the trees, after which they are permitted to stand until they become dry, when they are cut down and used as fuel.

The cultivated plants and trees are bread-fruit (of which they have twenty varieties), cocoa-nut, ti (*dracaena*), bananas, taro, paper-mulberry, tacea, from which arrow-root is made, and of which they have several sorts; sugar-cane, which is not made into sugar, but used only for thatching; coffee, ava, (piper *mythicium*), sweet-potato, pine-apple (*anana*), brought by the missionaries from the Society Islands, yams, the papaya, and tobacco in small quantities. The agave has not been introduced; but in a few years lemons and sweet oranges will be produced in great quantities from trees which have recently been planted.

To the cultivation of the tacea they pay little attention, yet the quality of the feula (arrow-root) made from it is said to be superior.

The missionaries are endeavouring to teach the natives the best mode of cultivating the sugar-cane and manufacturing it, and it is said that a few persons have adopted the new methods. At present they find a substitute for sugar in the root of the ti plant, which is baked in ovens, and yields a large quantity of saccharine juice resembling molasses.

Great attention is paid to the cultivation of the yam. They are planted in October, and are ripe in February and March. The vines run up the trees, and when they die, the root is known to be ripe. To plant them, they are cut, like the potato, into pieces containing eyes, which are laid in heaps and covered up until the sprout appears. The pieces are then set out at distances of about three feet from each other.

Hearing that there were some extensive savannas in Upolu, over-grown with the wild sugar-cane, I directed Assistant-Surgeon Whittle and Mr. Couthouy to proceed to the east end of the island, where they were said to grow. They, however, saw nothing of the kind except a few small patches of that plant.

There are no traces among these islands of any native quadruped, nor any other of the mammalia,

except a species of bat (*pteropus ruficollis*), which is very destructive to the bread-fruit. Swine have now become abundant, and the missionaries have introduced cattle, which are rapidly increasing, and will in a few years be in sufficient numbers for the supply of vessels. Horses have also been brought to the islands*.

The first large quadruped ever seen by these islanders was a mule. With it they were much astonished, and it was considered so great a curiosity that it was carried around the island of Upolu for the purpose of gratifying the natives with a sight of it. They gave it a name, signifying—the hog that travels over the ground.

Poultry of all descriptions is plentiful, and pigeons abound, which, however, are considered sacred, and not used as an article of food. Of the latter bird (*columba oceanica*), between sixty and seventy specimens of different varieties were obtained; but it is remarkable that of all these, none were the same as those found in the Society Islands. There are but few birds of game, and none of the hawk genus. A philomel was pointed out by the missionaries as the principal singing bird, and the woods of Tutuila were filled with warblers. The note of the philomel, although much praised, did not appear agreeable to me.

The pigeon is commonly kept as a plaything, and particularly by the chiefs; for this purpose they are fastened to a stick by a thread about twelve feet in length. They are taught to fly from and return to the stick, and when well tutored to this feat, the possessor of the bird exhibits it with much pride and satisfaction. One of our officers unfortunately on one occasion shot a pigeon, which caused great commotion, for the bird was a king-pigeon, and to kill it was thought as great a crime as taking the life of a man. The people were not to be pacified until the interpreter told them that the officer belonged to “man-of-war,” which intelligence, together with a small present, satisfied them, and the matter was settled.

To justify their regard for them, we were told that when the inhabitants of Aana were driven away, about eight years since, by the people of Manono, the pigeons abandoned the district, but that upon their return to their homes, the pigeons again made their appearance in their former abodes.

Snakes were found in Upolu, and sea-snakes are reported to have been seen off the islands.

Fish are taken in the neighbouring waters in great abundance and variety. Besides other modes of taking them, they are caught on the reefs by women, who place baskets near the holes where they are accustomed to take shelter. They are also speared by torchlight, and taken in deep water by the hook. Among the sea-fish mullets are very numerous, and are frequently seen leaping from the water in immense shoals.

One of the modes in which fish are caught by the Samoans was witnessed at Samatau. About a dozen canoes formed themselves into a ring around what appeared to be a dark circular spot in the water, about six feet in diameter, and which was moving along with a slow and unequal motion. This was a shoal of the small fish called lou, which is about two inches in length. The shoal being

* On Upolu there are now twenty head of cattle and seven horses.

thus surrounded, the circle of canoes was gradually lessened, until the fish, finding themselves enclosed on all sides, ceased to move forward. At this moment the head-fisher, who was seen standing up in the canoe with a net in his hand, threw it dexterously over the shoal, upon which all the other men dove at once from the boats, and remained for several seconds under the water, where they secured the sides of the net. On reappearing, all regained their canoes except four, who remained to take charge of the net, which with its prize they conveyed to the chief.

These islands furnish abundant supplies for the refreshment of vessels, but as yet there are few articles which can be rendered available in foreign commerce. Tortoise-shell, of which a little has at times been procured at Savaii, cocoa-nut oil, and arrow-root, are nearly all that can be procured in quantities beyond the immediate wants of the visitors. Caoutchouc, gum-arabic, castor beans, orris-root, ginger, and coffee, might however be easily added to the list of exports. In return for what they can furnish, the natives now look to objects of real utility; beads, jews-harps, &c., once so much in request, are now scarcely prized; and cotton cloth, writing-paper, and hardware, particularly needles and other small articles of utility, are the kinds of manufactured goods which are most sought after.

The Samoan language is soft and smooth, and is the only one of the Polynesian dialects in which the sound of *s* is found. The letters that the missionaries have found necessary to adopt in order to write it, are only fourteen in number, viz. A E F G I L M N O P S T U V. In attempting to sound the words of other languages, they use *L* instead of *R*, *s* for *h*, and *P* instead of *B*. The *G* has a nasal sound, as in *ong*.

It has nearly the same construction as the Tahitian, nevertheless the Samoan is far from being understood by the natives of the Society Islands. The Samoans say that they never can acquire it—“their jaws are too stiff.” The missionaries also have great difficulty in speaking it, and are liable to make many mistakes which appear absurd to the natives.

We have seen that it possesses the sibilant sound of *s*, and every one of the words terminates with a vowel.

A separate dialect is appropriate to the chiefs, all of whose actions, the parts of their bodies, &c., have different names from those of the common people.

Many of the Samoans reach the age of seventy or eighty years. There is, however, a great mortality among the young children, which is probably owing to their exposure to the weather. Those who survive, grow up robust and healthy.

Among the diseases which afflict the adults, one of the most usual is a spinal affection, which results in caries and produces humpback. This is no doubt owing to the peculiar manner in which the children are carried. Catarrhs and bronchial disorders, occasioned by the exposed life of the natives, are prevalent, and a white resident died of phthisis during our stay. The dysentery, as an epidemic, is unknown, but sporadic cases of it occur, occasioned by imprudence in diet.

There is an eruptive complaint, called *ilamea*, which covers many of the children under the age

of ten years with sores, and which seems more particularly to attack the face and head. The mode in which it is treated is singular: the child is rubbed with the husks of the cocoa-nut, until all the scabs are removed; a soft preparation of the bread-fruit is then applied, after which they are washed. This operation is undergone every time they bathe, which is daily. When the bread-fruit is not in season, a decoction of the husk of the cocoa-nut is used in its place.

The elephantiasis prevails to a great extent among men who are past the middle age; and some of the cases are truly frightful. There are also many instances in which women are affected by it. It does not appear to cause the least degree of pain. Among the reasons that have been assigned for the frequency of this disease are, the habit of eating their food without salt, and the use of cocoa-nut water; to which may be added exposure at night, and want of sufficient exercise. The latter cause, whether it be capable of producing this disease or not, unquestionably exists; for they are in the habit of sitting for hours with their legs bent under them, which must cause a stagnation of healthy circulation. Laziness, however, cannot be ascribed to them as a part of their national character, for they are disposed to exertion, and willing to be employed. When, therefore, they have received sufficient instruction, and civilization has taught them new wants, they will probably become an industrious and thriving people.

Ophthalmia, which is supposed to arise from the reflection of the sun from the sandy beaches near which all their villages are built, is so prevalent, that, to speak within bounds, not less than a fifth part of the population is affected with it*. In most cases it was observed to begin on the inner corner of the eye, whence it extends gradually over the pupil, until the sight is completely lost. As the disease advances, the thickness of the film increases, and when it has covered the eye, that organ becomes enlarged and appears to project. From appearances it would not be difficult to remove the film, and thus cure the disorder; but the natives have not made any attempt of the kind. Several cases of total blindness arising from this disorder were seen.

The venereal disease does not exist at Tutuila, and is hardly known in the other islands. This serves to prove how great a superiority this island possesses over Tahiti in the chastity of its females, who in general observe their marriage vow with strict fidelity.

Fevers are rare, and those of a remittent and intermittent type are unknown; in fact, the geological formation of these islands is by no means favourable to the generation of the miasmata that cause them.

No means of medical assistance are attached to the English mission, and the missionaries, therefore, can do but little in alleviating the maladies of the natives. Even their slight knowledge of remedies affords some alleviation, and their practice is far preferable to that of the natives, who always abandon to their fate those who are very ill.

Among the few curative means that the natives do employ is a sort of shampooing. This is per-

* It is so common at Savaii, that at least one case of blindness, in one or both eyes, is to be seen in every family.

formed by rubbing the body and limbs with the hands, at first gently, and gradually more and more roughly. These manipulations are applied as a restorative after fatigue, and to alleviate pain. For the former purpose they are effectual, and often abate, if they do not remove, the latter.

Among all the Polynesian islanders, the men of Samoa rank, in point of personal appearance, second only to the Tongese; and many specimens of manly beauty are to be seen among them. As much cannot be said of the women, who are rather ill-formed and stout. When very young, however, some of them are pretty, and their colour is light, being little darker than that of a brunette or South American Spaniard. The girls are lively, have a good expression of countenance, and, what is rare in Polynesia, have some degree of bashfulness.

The average height of the men is five feet ten inches, and some of the chiefs, whose limbs are well rounded, would be called fine-looking men in any part of the world. Their features are not in general prominent, but are well marked and distinct, and are all referable to a common type. The nose is short and wide at the base; the mouth large and well filled with white and strong teeth, with full and well-turned lips; the eyes black, and often large and bright; the forehead narrow and high; and the cheek-bones prominent. It was observed that some of them had the eye turned up at the outer corner like the Chinese. Of beard they have but little, but their hair is strong, straight, and very black; instances, however, were observed, where it had been turned to a carotly red, by washing it with lime-water for the purpose of destroying the vermin (*pediculus humanus*).

When the islands were first visited, the natives were represented as ferocious and treacherous. This arose in a great degree from the bloody conflict they had with the boats of La Perouse's squadron; and the opinion was kept up by the just resentment they in some cases manifested for wrongs committed on them by lawless visitors. The instance of Opotuno, however, shows that this idea of their character is not entirely without foundation. Viewed in a more favourable light, they are, as we found them, kind, good-humoured, intelligent, fond of amusements, desirous of pleasing, and very hospitable. Both sexes show great kindness and love for their children, and age is so much respected that only old men are admitted to council. As a shade on this picture, they are indolent, covetous, fickle, deceitful, and little reliance can be placed upon them. To illustrate these features of their character: the first question asked when a chief receives a visitor is, "What present will you take?" for they consider it incumbent upon them to bestow some token of regard, and a neglect to offer it would be indecorous. This custom was always complied with, when any of our officers visited them; and although it was evident they did not wish to part with any thing valuable, their choicest possessions were exhibited as if for the choice of the stranger. On the refusal of their offered presents, great joy was always to be observed in their countenance and manner, showing that they rejoiced in an escape from loss, while they had at the same time performed the prescribed rites of hospitality. This risk being over, they were too happy to supply us with cocoa-

nuts and fruits. In spite, however, of the apparent liberality with which these were furnished, they do it in expectation of a full return. In pursuance of this hospitality, it is the custom when a stranger passes through a village without showing an intention to stop, to follow him and offer food.

The Samoans are usually very inquisitive, and it was amusing to excite their curiosity. Among other things mentioned for the purpose was, that white men often wore false teeth and wigs. The latter practice in particular seemed strange to them, and they called it "thatching the head." A terrestrial globe was also shown to some of them, whereon the position of their islands and their small relative importance was pointed out. This excited great surprise, for until within a few years they had no idea that there was any country except their own.

If the chiefs are liberal in their tenders of presents to their visitors, they on the other hand do not hesitate to ask for whatever they see. They may, in fact, be styled sturdy beggars. One of the most persevering in his mendicancy, was no less a person than Vavasa, the proud and overbearing chief of Manono. They usually began with begging from the humblest individual, and ended with the highest; and when they had obtained all they could, would go over the side of the ship ridiculing our folly for giving so much.

Old Pea, by way of excusing himself when charged with being a great beggar, said he did not keep any thing he got for himself; that it was the Samoan fashion always to ask for every thing he saw. It mattered not if his request was refused, he was as content as if he obtained what he desired, but he said he should have blamed himself if he had not asked.

The beneficial effects of the labours of the missionaries are more evident among the Samoans than at Tahiti. The spread of the Gospel has not been opposed by evil habits of the same inveterate character, and the natives of this group have been more easily reclaimed from their vices than those of the Society Islands. The greatest obstacle to the success of the missionaries has arisen from the presence of a few abandoned white men, who attach themselves to the heathen chiefs. Their opposition, although injurious to the missionary cause, yields little benefit to themselves, for of every thing they acquire, the chief under whose protection they are takes half; and although no opposition is ever made to their departure from the islands, they are not permitted to take any thing with them. The vices of these men excite the disgust of the more well-disposed of the natives, who often express their astonishment at their ignorance of sacred subjects, and ask if it be possible that such men can have been brought up in a civilized community. The first attempt to introduce Christianity is related to have occurred in the following manner. Some years before the arrival of the missionaries, a vessel was wrecked upon the island of Upolu, and her cargo seized upon by the natives, many of whom, even to the present day, regret that they did not then understand what riches were thus placed at their disposal. Their mode of treating the prize was farcical in the extreme: pipes were made out of candlesticks, clothing was thrown away as valueless, and many injured themselves with the fire-arms. The crew

were well treated, and fed for a long time, although the natives were greatly astonished at the quantities of pigs required for their support, and entertained fears lest they should breed a famine in the land. The captain advised his crew to turn missionaries, and set them the example himself. He met with much success, and succeeded in building several churches, until, upon the arrival of the English missionaries, he was compelled to relinquish his assumed occupation. It is not probable that even the captain was deeply versed in religious knowledge, and very certain that the crew could not have been; but their success appears to have arisen from the great veneration with which white men were at first regarded by the Samoans. They looked upon them as a sort of spirit, whom it was impossible to hurt or to kill; and the ships first seen off the coast were considered as heavenly messengers, prognosticating some dreadful calamity. The bad conduct of their nautical visitors has destroyed this reverence, and foreigners generally no longer meet the kind welcome they formerly received; this observation does not apply to the missionaries, who receive all the honour that is due to their good intention, of which the natives are fully aware*.

The Wesleyan missionaries, and those of the British board, reached these islands about the same time, or the former were perhaps the first to arrive. The influence of the Wesleyan tenets, and the number of their followers, increased rapidly under the superintendence of the Rev. Mr. Turner. Difficulties, however, arose between the two parties of missionaries, which were finally adjusted between the two boards in London, and the Wesleyans abandoned this field for that of the Feejee Group. This arrangement was amicably made, and I heard of only one individual on either side who showed an uncharitable spirit towards his fellow-labourers of the other party. In spite of the removal of the Wesleyans, there is still a large number of the natives who adhere to the tenets and forms taught them by Mr. Turner, and still retain a strong attachment to him.

The missionaries were from the very first taken under the protection of the most powerful chiefs, and have never received either insult or injury from any of the natives. They have established schools in many of the villages, but have found a difficulty in obtaining native teachers.

A printing-press has also been established at Upolu, and rapid progress is making in the translation of the Scriptures, of which some portions are already published. Many publications have issued from this press: among them I regretted to observe a small tract containing a violent attack upon the Roman Catholics. The sight of this surprised me, as it contradicted the opinion I had formed, from my intercourse with the missionaries, of their liberality and freedom from intolerance. The sole object of the tract was to prepossess the minds of the natives against the missionaries of the Papal Church, in case they should visit these islands. This struck me as being at variance with the first principles of our religion; and I could not refrain from expressing an opinion that the tract was calculated to do much harm.

The labours of the English missionaries have

* All the natives have some knowledge of Captain Cook, derived from their communication with the Friendly Islands.

been much aided by native assistants, who have been both industrious and successful; and among them, those of Raratonga have the merit of having led the way. They have acted under the direction of Mr. Williams, and he was loud in praise of their exertions. I witnessed a most interesting meeting of these native missionaries, for the purpose of selecting nine from their number to accompany Mr. Williams to the New Hebrides, which has perhaps left a more deep impression on my mind from the melancholy result of that attempted mission.

Great anxiety was exhibited by the candidates; and I have never seen a more proper state of feeling, or listened to more correct sentiments, than were expressed on this occasion. All appeared devoted to their calling, and some of them were quite eloquent. After the choice was announced, those upon whom it had fallen manifested a cheerful but not unbecoming triumph, while the rejected candidates were evidently grieved and disappointed. The former were now invested with new apparel, which, although no more than a striped cotton shirt*, gave them an air of consequence among their brethren, which was amusing to us who could draw comparisons between this simple garment and prouder kinds of canonicals.

Each of the resident missionaries now delivered a long harangue, which was replied to by one of the selected. The subjects of these discourses were, on the one hand, advice in reference to the duties about to be entered upon, and on the other a recognition of the weight of the responsibility incurred by the successful candidates.

Most, if not all, of those selected for the new mission were fine-looking men, and they were chosen out of many applicants, for their steady habits and strict moral conduct. The term of their engagement on the new duty was three years, after which they were to return to their wives and children, who were not to accompany them.

The extent and influence of the labours of the missionaries may be best understood by a comparison between the whole population of the islands, with the numbers of those who have embraced Christianity, and attend the schools.

The entire population of the group is estimated at 56,600, of whom 14,850 have embraced Christianity, and 12,300 attend the schools. These numbers are thus distributed:

Islands.	Population.	Professors of Christianity.	Pupils.
Eastern Group .	2,000	150	150
Tutuila . . .	8,000	2,200	1,900
Upolu . . .	25,000	8,000	6,200
Savali . . .	20,000	4,000	3,700
Manono . . .	1,100	400	230
Apollima . . .	500	100	120
Total	56,600	14,850	12,300

* This garment is the only remuneration that they receive during each year from the missionary funds, and with it they feel themselves well requited.

I have to acknowledge the obligation under which I feel myself to the missionaries, both individually and collectively, for their kindness and attention. They did all in their power to further the objects of the expedition, and to them the squadron is mainly indebted for a great part of the facilities we enjoyed of becoming acquainted with the manners, habits, and customs of the Samoans.

The whole number of foreign missionaries is eleven, of whom one resides in Tutuila, six in Upolu, three in Savaii, and one in Manono.

The number of native teachers is one hundred and thirty-eight, of whom five are in the Eastern Group, thirty-one in Tutuila, fifty in Upolu, thirty-six in Savaii, twelve in Manono, and four in Apollima.

Besides those counted as having actually embraced Christianity, it is said that two-thirds of the whole population belong to the Christian party.

Of those who attend the schools, about ten thousand read, and this newly-introduced habit has of course made a very great change in the habits of a majority of the people, but the number of heathen still left is sufficient to furnish an idea of their original manners and customs, which will in a few years be either entirely lost, or so modified by the spread of the Gospel as to change their character entirely. The rapidity with which this change is going on, rendered it desirable to obtain as much information as possible in relation to the pristine manners of this people.

As respects their ancient religion, we have obtained the following particulars of the heathens. They acknowledge one great god, whom they call Tangaloa-lagi, but pay less worship to him than to their war-gods, Tamafaiga, Sinleo, and Onafanua. The first entices them to war, the second leads them to it, and the third is a female goddess, who encourages them to fight.

Mafuie is their god of earthquakes, who was deemed to possess great power, but has, according to the Samoans, lost much of it. The way in which they say this occurred is as follows. One Talago, who possessed a charm capable of causing the earth to divide, coming to a well-known spot, cried, "Rock, divide! I am Talago; come to work!" The earth separating at his command, he went down to cultivate his taro-patch. His son, whose name was Titiiti, became acquainted with the charm, and watching his father, saw him descend, and the earth close after him. At the same spot, Titiiti said, "Rock, divide! I am Talago; come to work!" The rock did not open, but on repeating the words, and stamping his foot violently, the earth separated, and he descended. Being a young man, he made a great noise and bustle, notwithstanding the advice of his father to be quiet, lest Mafuie would hear him. The son then asked, "Who is Mafuie, that I should be afraid of him?" Observing smoke at a distance, he inquired the cause of it. Talago said, "It is Mafuie heating his oven." Titiiti determined to go and see, notwithstanding all the persuasions of his father, and met Mafuie, who inquired who he was. "Are you a planter of taro, a builder, or a twister of ropes?" "I am a twister of ropes," said Titiiti; "give me your arm, and I shall show you." So taking the arm of Mafuie, he twisted it off in a moment. Such a practical illustration of his powers soon made Mafuie cry out, "Na fia ola, na fia ola!"—"I desire to live, I desire to live! Titiiti then took pity upon him, and let him go. The natives, on feeling an earthquake, exclaim, "Thanks that Mafuie has but one arm! if he had two, he would shake the earth to pieces."

The god Salefu supports the earth. They have

likewise Mesua, Faana, Tinitini, Lamamau, who are gods of lightning, rain, whirlwinds, &c. These gods are said to reside on an island to the westward, from which quarter their bad weather usually comes.

They had, likewise, many inferior gods, who watched over particular districts. These various gods owned certain animals, reptiles, fish, and birds. In some few districts inanimate objects were worshipped, thus: a branch of bamboo, with a bunch of cocoa-nut fibres tied on the top, was worshipped in Manono. They also had carved blocks of wood and stone erected in memory of dead chiefs, which they worshipped.

The account they give of the creation of their island is as follows:

Tangaloa, their great god, who lives in the sky, sent down the bird Tuli (a kind of snipe), his daughter, to look what was below. She reported to her father that she saw nothing but sea. Tangaloa then rolled a stone from heaven, which became the island of Savaii, and another which produced Upolu, and the same for the others.

This did not suit Tuli, who returned to ask for inhabitants. He gave her orders to plant the wild vines (fuefue), which after growing were ordered by him to be pulled up and thrown into heaps, from which worms were produced. Then it was desirable that they should become human. Spirits were accordingly sent to them by Tuli, and the worms became man and woman.

Their notions of a future existence are quite vague. They believe, however, in a happy future state, where every thing good is provided. Some say that it is on their own island, others on distant islands, and for the chiefs at the residence of the gods on Pulotu, an island to the westward. They also believe that the spirit goes there immediately after death; that in these places it never rains; that they eat and drink there without labour, and are waited upon by the most beautiful women, who are always young, or as a chief expressed it to one of our officers, "whose breasts never hang down."

The spirits, according to their belief, often come down to wander about at night around their former dwellings; some spirits are believed to die, while others are immortal; some dwell in subterranean abodes, and are eaten by the gods. Some persons believe that after death they become "aitus," or inferior gods.

They believed in many omens, which were carefully watched. If the black stork, called matuu, flew before them on a war expedition, in the direction they were going, they deemed it betokened success; but if in any other direction, it was an ill omen. If a dim moon, or very bright starlight, or comet, were observed, it always indicated the death of a chief; and a rainbow was a sign of war.

The squeaking of rats was an unfortunate omen. Sneezing was also considered unlucky; if any one of a party sneezed on a journey, their further progress was postponed.

I was told that the Samoans have a great dread of being abroad in the dark, and that when obliged to pass about their villages by night, they use flambeaux made of the dried stalks of the cocoa-nut leaf to light them on their way. This fear is partly owing to superstition, which makes them fearful

of encountering some spirit or aitu, with which their imaginations people the groves, springs, rocks, trees, &c. They are in the habit of occasionally making a feast for the king's aitu, when a number of pigs are prepared, and a quantity of taro, fruit, &c. is gathered. The portion for the aitu is placed near his supposed dwelling-place, and the dependants and others enjoy themselves on the remainder.

They were formerly in the habit of presenting their first fruits to the aitus and chiefs. This custom still continues among the heathen, but the Christian party present theirs to the missionaries. The ceremony usually takes place in January or February. In drinking ava, the first cup was always presented to the gods.

There is an account of a large lizard which dwells on the south side of the island, and is worshipped as an aitu. The description given of it makes it two fathoms long and as large round as a cocoa-nut tree, with huge scales, and a mouth filled with sharp teeth. It is said to dwell in a stream near Safata, into which the natives frequently throw meat. Some of them declare that they have seen him, and that he has dwelt there upwards of fifty years.

It is not remarkable, however, that they should have this tradition; and this circumstance affords an additional proof that they have had frequent intercourse with the Tonga, or Friendly Islands, where a similar tradition is spoken of in Mariner's Tonga Islands.

Among their other superstitions is that of a malignant spirit that resides in the vicinity of Apolima, in the shape of an enormous eel, of from six to ten fathoms long, and large in proportion, which attacks canoes and drags them down.

A story is told that is said to have happened only a few years ago. While two natives of Manono were swimming across the channel in the reef, they were drowned in the sight of many others; immediately a large canoe was manned, and went in quest of them; the crew of this canoe encountered the monster, and wounded it. The canoe was upset, and although a few saved themselves by swimming to the shore, the greater part of them were destroyed. When asked if it was not a shark, (of which they have two kinds, the tanifa, or great white shark, and the masi, or small blue one,) they replied, it was a monstrous *pasi*, which is the name applied to the murena or conger eel.

Their dances and other amusements are in a great degree abolished, but they are still practised in the heathen villages; and even the Christian women may still be induced to exhibit the former, which they call *siva*. The mode of performing it differs from that of the Tahitians, but is like it, lascivious; and neither of them would be called dances in our sense of the term. The dance is usually performed by young girls, who stand up before the audience, throwing their arms, legs, feet, and hands, in numerous strange attitudes, which are any thing but graceful. The others who are present sing amusing words, in two or three parts, while a third or fourth part is kept up in a coarse grunt or guttural sound, in the bass clef. The words are comprised in short sentences, each of which finishes suddenly with a staccato note, and a violent gesture.

The dance of the girls at Upolu consisted entirely of motions of the body, and was so indelicate as to produce disgust. The chant which accompanied it was sung with a high voice, and three or four women were employed in beating time on the mats with short sticks, in which most of the spectators joined with their hands. In all cases they kept time with the greatest accuracy.

The Samoan drum is made of a part of a tree, hollowed out; they have also an instrument formed of a loose slat fitted into a board, on which they beat time with two sticks. Their flute, if it may be so called, is made of bamboo, as are also their pipes, which resemble those of Pan.

The dances of the men are by no means indecorous. Those who perform them vary in number from two to a dozen, and are divided into two parties. These parties alternately advance and retreat, which gives an appearance of animation. Clapping their hands, swinging them to and fro, or clapping them over their heads, they follow each other in a circle, leaping up and down, and turning suddenly around, keeping time to the music. The dances continue a considerable time, and end with a sudden clap of the hands and a simultaneous shout.

The song is usually extemporaneous, relating to some recent occurrence. The following is a translation of one of them, obtained by Mr. Couthouy through one of the interpreters :

The Papalangi has come to Samoa,
The Papalangi has come to Valusu,
Let us all go down to the spring.
The Papalangi is fond of the Siva.
Where is the pig? Where is the fattened fowl?
The Papalangi cannot join in the Siva.
Kindle up a bright blaze! Where are the virgins?
I am going to get some cocoa-nuts.
Look at this Samoan, how finely he dances!

These dances are usually performed in the fale-tele, where strangers are entertained. The inhabitants and their guests occupy different ends of the building, and alternately keep up the dancing and singing. Through the latter all the news is made known, occurrences related, and inquiries made and answered.

Besides these dances, there are various games. One of these, called "lupe," is played by two persons, who sit opposite each other. One of them presents his closed fist to his opponent, and then rapidly holds up one, two, three, or all the fingers and the thumb, striking the back of his hand on the mat at the same time. If his opponent fails of instantly holding up a like number of fingers, he loses a point, and ten points finish the game.

"Lafo liputa" is also played by two persons, who place about fifty beans of the mimosa scandium before them; then taking up four at a time, they throw them up in the air, and catch them on the back of the hand; the player who catches a hundred soonest is the winner.

Tuae-fua: this is played by five or six persons. It resembles the sport of the Chinese jugglers with iron balls. The first player sometimes takes as many as eight oranges, throwing them successively into the air, and endeavours to keep the whole in motion at once. They are very dexterous at this: if they miss three times the game is lost.

Tui-muri affords the natives much amusement. Any number of persons may play at it. They seat

themselves in a circle, and divide into two parties. An orange is suspended from above, about two feet from the ground, and each person is supplied with a small sharp-pointed stick. The orange is swung round, and as it passes, each one endeavours to pierce it, some with great eagerness, others quite calmly, and others again with a wary coolness, all of which affords much amusement to the bystanders. The party wins who first succeeds in fairly hitting the orange fifty times.

It is played for mats, trinkets, &c., but more generally for a baked pig, which is eaten when the play is over.

Litia: this is a general sport, sometimes whole villages playing against each other; it is in fact an exercise in spear-throwing. Two parties furnish themselves with light sticks of the hibiscus tiliaceus, about eight or ten feet long and as thick as a finger. The bark is stripped off, which makes them very light. The two parties arrange themselves in a line, and strive to throw these as far as possible; the party which succeeds in throwing fifty the furthest wins the game. The usual distance to which they are thrown is about forty yards, and one would conceive it almost impossible for them to be thrown so far. A grand feast usually terminates the sport, which the losing party pays for.

"Lafe" is a game confined to the chiefs, who play it for pastime. Four persons sit at the corners of a mat, ten or twelve feet long, in whose centre is placed another of ten inches square; the persons at opposite corners are partners; each party is provided with five circular pieces of cocoa-nut shells, from two inches in diameter to half a cocoa-nut. The first player lays his smallest piece on the little mat, and his opponent tries to knock it off, and leave his own in its place. Each in his turn endeavours to knock his opponent's pieces off. The party which first succeeds in knocking his opponent's pieces off one hundred times, wins the game. The pieces of cocoa-nut are finely polished and carved with a variety of devices.

There is no ceremony at births, or indeed any inconvenience. The mother generally proceeds immediately to the spring, bathes and washes her infant, and at the same time her usual occupations are resumed. The naming of the child frequently takes place some time before its birth, for sex makes no difference in the names, which are given indiscriminately to males and females.

The mothers often suckle their children until they are six years old; and I was told of an instance where a woman gave nourishment to three children of different ages at once, the eldest removing the youngest sometimes by force from the mother's breast.

It is their practice to wash the children frequently in the fresh-water streams.

When a native wishes to get a wife, the consent of the chief is first obtained. Then he takes a basket of bread-fruit, and offers it to the girl of his choice. His suit is considered as accepted if she partakes of it. He must then pay her parents a certain price for her, which varies with the station and ability of the parties. A chief's daughter is valued high, viz. at half a dozen hatchets and as many fathoms of cloth.

Another mode of courtship is to go to the house of the object of attachment or desire, and be entertained. If the family show a friendly feeling towards the young man and eat with him, his ad-

dressess are favourably received. The formal offer is made by a large present to the family of the female, which being accepted, the match is made, and if refused, the courtship is at an end. The parents expect their children to abide by their decision. The "Malo" party have been in the habit of taking wives from their conquered enemies when they thought proper. At a marriage ceremony a great feast is made, particularly if it be a chiefs.

A man is at liberty to repudiate his wife and marry again on certain conditions, but the woman cannot leave her husband without his consent.

Adultery was formerly punished with death, and is very seldom committed. Among single women, intercourse with a Samoan before marriage is a reproach, but not with transient foreigners.

It is a common practice for parents to make a present of their children to chiefs or others, who adopt the child as their own, and treat it ever after as such. After it is grown up, one-half of its earnings goes to its adopted parent. This custom gives the chiefs many adopted children of both sexes, who continue to live with them, and are in all respects treated as their own; and spreads their connexions far and wide.

In their burials at Upolu, they have but little ceremony. The body is enveloped in many folds of tapa, and deposited, as has already been described, at Tutuila, with the ti planted around. No utensils, arnis, &c., are deposited with the bodies; for, according to their belief, they have these things provided for them in their Elysium. A feast is made for the attendants, consisting of pigs, taro, bread-fruit, &c.; presents are made by all the relatives to the family of the deceased, and if the family can afford it, a small canoe is procured for a coffin. After the body has lain in the grave some time, they take up the skull and place it in a box in their houses. The reason assigned for this is to prevent their enemies from possessing themselves of it, for it was a custom in their wars to violate the sanctity of the grave. We heard that a few of the bodies of chiefs had been preserved by oil and heat; and the missionaries informed me that they had seen the bodies of those who died thirty or forty years before, preserved in this manner.

Their mode of showing their grief is to burn themselves to blisters, (forming indelible marks,) with little rolls of twisted tapa, which, on being lighted, soon produced a coal. They also scratch their bodies. The females are said (in token of affliction for deceased friends) to have pricked holes in the corpse, and sucked out the fluids. All these practices may be now said to be passing away, and are almost obliterated.

There is already a very great difference, not only in dress but in appearance, between those who have adopted Christianity, and those who adhere to heathenism. The latter have a wild look, to which their long hair, tied in a bunch behind, adds not a little; and when going to war they let it hang down in wild confusion, which increases their savage appearance.

On the other hand, the Christians crop their hair short,—a fashion introduced by the missionaries.

The hair of the children is cropped close, except a lock on each side of the head. The manners of the people in the Christian and heathen villages are as different as their appearance. In the latter

no schools are seen, nor any of the incipient marks of civilization. Their reception of strangers in the Christian villages is always kind and hospitable, although, as has been stated, a return is looked for. Among the heathen, the manner of reception cannot be counted upon with certainty, for they at one time welcome their visitors with cordiality, and at another are rude, insolent, and anxious to obtain all the strangers possess. When in good humour, they entertain their guests with the lascivious dances we have described, performed by native girls. Their whole manner and conduct are so different from those of villages within a short distance of them, that the effect produced on the latter by the instruction of the missionaries, appears almost miraculous.

In the heathen villages the dress of the Samoans is to be seen in its primitive simplicity. It is no more than the titi, which is a short apron and girdle of the leaves of the ti (*dracæna*), tied around the loins and falling down to the thighs. The women besmear themselves with cocoa-nut oil mixed with turmeric, which gives them a shining yellow tint, that is considered as a beauty; on each breast is a spot of reddish brown, of a singular shape, and of various sizes, from that of a dollar to that of a dessert-plate. They do not show the least sign of feminine bashfulness, while those of the Christian villages cover their bosoms, and exhibit as much modesty as those of any country.

During the last ten years the dress of the natives has undergone much change; the titi has been increased in length, and extends all round the body; it has a neat and pretty effect when first put on, but requires renewing often, as the leaves wilt in a few days; this garment is well adapted to the climate, being cool, and the necessity of frequent change insures cleanliness.

The Wesleyan missionaries from the Friendly Islands have introduced the siapo, of Tonga, which has now come into common use. It is soft, pliable, and not glazed, and is principally used as a wrapper, after the manner of the pareu of the Tahiti islanders. A piece of cotton cloth is usually worn by the chiefs as a siapo.

The maro is worn when engaged in active exercise, or in war, as being less cumbersome. The women often wear a beautifully white shaggy mat (*ie sina*), hanging from the neck to the feet. It is woven by hand from the fine threads of the hibiscus; they also sometimes wear wrappers of the siapo form, and the tiputa, a kind of poncho, of the same material, after the old fashion of the Tahitians, which is more becoming than the loose gown introduced into that island by the missionaries.

There is another kind of mat, of very fine texture, worn on great occasions, and used in their dances as a kind of cloak. It is ornamented with a border of red feathers. This is the most valuable property they possess, for they cost much pains to the manufacturers, and are often a year or eighteen months in their hands.

In the way of ornaments they use but few. The men usually wear a shell (the ovula) suspended around the neck by a string.

Their hair formerly occupied much of their attention, as it does still that of the heathen, who, as has been seen, wear it long, and have it nicely combed and twisted up in a knot on the top of the head. The females frequently used to wear a wreath of

flowers, which gave them a picturesque and pleasant appearance; but the use of flowers as ornaments has been interdicted by the missionary teachers.

Tattooing, if not in reality, at least in appearance, may be said to form a part of dress. It is performed by persons who make it a regular business. The age at which it takes place is from fourteen to eighteen, and is usually considered the initiation to manhood. The usual colouring matter is obtained from the kernel of the candle-nut. Tattooing is here called ta-ta-tau, and is tastefully drawn. The natives are very fond of it. It is expensive to the family, for the operator always receives a high price for his labour, consisting of the finest mats, siapo, and other property, as agreed upon before the operation is begun. The instrument used is made of bone, sharp like the teeth of a comb, and requires but a slight blow to enter the skin. The part tattooed on the males is from the loins to the thighs, but the women have only a few lines on their hands and bodies.

The articles of which their dress is composed are manufactured by the females, who are exceedingly industrious. The common cloth or tapa is made of the inner bark of the paper-mulberry, which is cultivated for the purpose in nurseries. It is cut when the stem is about one and a half inches in diameter; the inner bark is separated and washed in water, which deprives it of some of its gum; it is then beaten until the adhesion of the fibres forms many of the strips into a single mass. The mallet used for this purpose is about two inches square, and about fourteen inches long, with a handle at one end; two of its faces are grooved and the other two smooth; the bark is laid on a board, and struck with the mallet in a direction at right angles with its fibres; the grooved sides are used to spread out the fibres, and the smooth ones to knit them together. The grooves also give a thready appearance to the surface.

This method differs from that practised at Tahiti, where the bark is beaten with a smaller mallet, upon a spring-board; and the tapa made here is of inferior quality. The tapa is often printed with colours in patterns. This is performed in a mode similar to that practised in Europe before the introduction of copper rollers. Instead of engraved blocks, they form tablets, about as thick as binders' boards, of pieces of large cocoa-nut leaves, by sewing them together. One side of the tablet is kept smooth and even, and upon this cocoa-nut fibres are sewed so as to form the required pattern, which is of course raised upon the surface of the tablet. These tablets are wet with a piece of cloth well soaked in the dye, after which the tapa, which for this purpose is well bleached and beautifully white, is laid upon them and pressed into close contact. The dye is made from herbs and roots, and is of various colours.

The women also manufacture the mats. Some of these have been mentioned in describing the dress of the natives: the finest kinds are made of the inner bark of the paper-mulberry; those of coarser texture of the leaves of the pandanus, which are nicely scraped and bleached. The mats are all made by hand, and by interlacing the fibres; one of the finest description will require the industrious labour of a year.

Among the mats are some of as fine a texture

and as soft as if made of cotton. These are rarely or never manufactured at present, and are solely possessed by the chiefs, in whose family they are handed down from father to son, as heir-looms. They are considered as their choicest treasures, and are so much coveted that wars have been made to obtain possession of them.

There are several distinct trades among the men besides that of tattooing; among the most esteemed is that of canoe-building, in which there is no little skill displayed.

The usual fishing-canoe is made of a single tree, with a small out-rigger to balance it. They have no large double canoes, such as are seen in Tonga and Feejee.

The largest canoes are from thirty to sixty feet long, and capable of carrying from ten to twelve persons. They are formed of several pieces of plank, fastened together with sennit. These pieces are of no regular size or shape. On the edge of each plank is a ledge or projection, which serves to attach the sennit, and to connect and bind it closely to the adjoining one. It is surprising to see the labour bestowed on uniting so many small pieces, where large and good planks might be obtained. Before the pieces are joined, the gum from the bark of the bread-fruit tree is used to cement them close and prevent leakage. These canoes retain their form much more truly than one would have supposed, and I saw few whose original model had been impaired by service. On the outside, the pieces are so closely fitted as frequently to require close examination before the seams can be detected. This perfection of workmanship is astonishing to those who see the tools with which it is executed. They are now made of no more than a piece of iron tied to a stick, and used as an adze. This, with a gimlet, is all they have, and before they obtained these iron tools, they used adzes made of hard stone or fish-bones. These canoes are built with a deck forward and aft. They are long and narrow, and their shape is elegant. They are paddled by natives, who sit two abreast, and are guided by a steersman. The seat of honour is on the forward deck, in the centre of which is a row of pegs, to which the large white ovula shell is attached by way of ornament. The natives find no difficulty in occupying this place, as they manage to sit in almost any position with ease to themselves; but a stranger who attempts it, and is for any time confined to one of these places of honour, will repent of the distinction he enjoys before many minutes are over. One of our gentlemen was treated with this distinction, and will long recollect the words of the song they sing.

"Lelei tusilava le tau mua,
Leango tusilava le tau muri."

"Good above all is the part before,
Bad above all is the part behind."

The uneasiness, from his account, does not only proceed from the small place left to sit upon, but also from the constant apprehension of being precipitated into the sea. This faa Samoa, or Samoan fashion, is any thing but agreeable.

Having both a prow and stern, these canoes cannot be manœuvred without tacking; consequently the out-rigger, that constitutes their safety, is, in using their sail, alternately to leeward and windward, and does not, when to leeward, add much to

the stability of the canoe. They carry less sail than the canoes of the other natives of Polynesia; and to guard against the danger of upsetting, the natives rig a sprit or boom (*suati*), projecting from the opposite side to that on which the out-rigger is fitted. This boom is secured with guys to the top of the mast. When the wind blows fresh, some of the men go out upon it, and thus balance or counteract the force of the wind. Those on the other side of the canoe are kept ready to go out on the out-rigger when that becomes necessary. The sail is made of a mat, of a triangular shape, with its apex below: some of these are ten feet high.

None of the canoes we saw at the Samoan Group are calculated for long voyages. Those used in their intercourse with the Tonga Islands are the large double Feejee canoe, of which I shall speak when I treat of those islanders.

In their trips from town to town, they are generally on parties of pleasure, termed *malanga*, and are frequently to be met with singing their boat-songs.

These songs have but little variety, are destitute of melody, and have small pretensions to harmony. They consist, for the most part, of two short strains, repeated alternately, the first by a single individual, and the second by several. Their voices are loud, and have generally a tenor character; the strains are mostly in the minor scale, and sung in the key of two or three flats.

The work in which the Samoans show their greatest ingenuity, is in the construction of their native houses, and particularly of their fale-tele or council-houses, some of which are of large dimensions. They are built of the wood of the bread-fruit tree, and there are two modes in use, their own, and that borrowed from the Friendly Islands. The true Samoan house is slightly oval; those of the Friendly Islands are oblong. They may be said to consist of three parts, the centre and two ends; the former is erected first. For this purpose the three centre-posts, which are twenty-five or thirty feet high, are usually first raised; on these rests the ridge-pole. A staging or scaffolding is now erected, nearly in the form of the roof, which serves for ladders and to support the roof temporarily. The roof is commenced at the ridge-pole, and is worked downwards. The cross-beams are lashed in at different heights, connecting the centre portions of the roof together, and are fastened to the upright centre-posts. The rafters are made of short pieces, placed at equal distances apart, and form the curve that is required to construct the roof. Between the largest rafters are smaller ones, about one foot apart. Across the rafters are placed and fastened many small rods, about an inch in diameter. The whole is neatly thatched with the sugar-cane or pandanus-leaves, and the rafters are terminated by a wall-piece, made of short pieces of wood, fastened together and to the rafters, so as to form the ellipse required for the roof. The end portions, of similar small pieces, are made to correspond to the required curvature of the roof and the ellipse of the wall-plate. Posts are now placed in the ground, about three feet apart, to receive the wall-piece, which is fastened to their tops. There is no fastening used but sennit, made of cocoa-nut fibres. The rafters are generally made of the hibiscus, which is light and strong. The eaves extend about a foot beyond the posts. The

smaller houses generally have permanent sides; the larger ones are open all around, but mats are hung up as curtains by the occupants, and any part may be used as a door.

After the whole is finished, the interior has the appearance of an extensive framework, from the number of cross-beams, which are used as depositories for their property, *tapas*, mats, &c.; and in some cases the favourite canoe of the chiefs is placed on them. After a full inspection of one of these fabrics, one cannot but view these natives not only as industrious, but as possessing great skill and ingenuity. The thatching lasts four or five years. There is no floor to the house, but the ground is covered with stones about the size of a small egg. There is usually a paved platform on the outside, about three feet wide. In some cases this is raised a foot, and serves to keep the house dry, as the stones allow a free passage to water. On the pavement are laid coarse mats, and the finer ones are spread above, covering about half the area.

These fine mats are rolled up until required. Many baskets hang here and there, with some cocoa-nut shells to contain water, and the ava-bowl. Mats are suspended about as screens. At night, each sleeper is usually supplied with a musquitocurtain, called *tai-namu*, which, forming a kind of tent, by being passed over a ridge-pole or rope, and falling on the ground, answers all the purposes required*.

On one, and sometimes on both sides of the centre-post of the houses, is a small circular hearth, enclosed by stones of larger size; this is the place for burning the dried leaves of the cocoa-nut, which serve them for light at night. Although these do not give out much smoke, yet as they burn for a long time, the house gradually becomes filled with soot, for there is no outlet above for its escape†.

As they always use the flambeau to light them on their return from their feasts, it produces a singular and pretty effect to see an assembly breaking up, and the different parties winding through the groves with torches, throwing the whole into bold relief. A rude lamp is also used, made of a cocoa-nut shell, with a little oil in it, and a piece of vine-stalk for a wick, and likewise the nut of the *aleurites triloba*, or candle-nut, several of which are strung on a thin stick.

Many white-washed houses are now to be seen, for the natives have been taught the use of lime by the missionaries, and are beginning to use it in their dwellings. All the missionaries' houses have plastered walls, and board floors, and are very comfortable. There is a great quantity of fine timber on these islands, for building purposes. The timber of the bread-fruit tree and hibiscus are alone made use of by the natives. The missionaries have their planks or boards sawed by hand, and generally by foreign carpenters.

The food of the Samoans is prepared in the way practised at Tahiti, and generally consists of bread-

* Mosquitoes are exceedingly annoying to strangers, but I did not remark that the natives were troubled with them. Their bodies being well oiled is a great preservation against the bites of these insects.

† The prevalence of sore eyes is said to be owing to the smoke of the lamps.

fruit, bananas, taro, sweet-potatoes, and yams. Fish is supplied in quantities from the reef, and they also eat the large chesnut, vi-apple, and arrow-root, the fecula of which they begin to manufacture in some quantities. Although it would scarcely be supposed necessary, where every thing is so bountifully supplied by nature, yet they make provision for times of scarcity and for their voyages of the bread-fruit, made when green into a kind of paste, and rolled in banana-leaves. This undergoes a partial fermentation, and is called mahi. It is not unlike half-baked dough, and has a sour unwholesome taste. They eat birds, &c., but a large wood-maggot which is found on the trees is looked upon as the most delicious food they have.

They have much variety in their cooking, and some of their dishes are exceedingly rich and agreeable to the taste. They practise several modes of cooking the taro-tops; one, by tying them up with cocoa-nut pulp and baking them, in which state they resemble spinach cooked with cream, but are sweeter. Another dish is called faiai, made of the scraped and strained cocoa-nut pulp boiled down to the consistency of custard. It is eaten both hot and cold.

The habits of the Samoans are regular. They rise with the sun, and immediately take a meal. They then bathe and oil themselves, and go to their occupations for the day. These consist in part of the cultivation of taro and yams; building houses and canoes. Many fish; others catch birds, for which purpose they use nets affixed to long poles. They generally find enough to employ the mornings, in getting their daily supply. After this is done, they lounge about, or play at their various games, eat about one o'clock, and again at night, retiring to rest about nine o'clock. The men do all the hard work, even to cookery.

The women are held in much consideration among this people, are treated with great attention, and not suffered to do any thing but what rightfully belongs to them. They take care of the house, and of their children, prepare the food for cooking, do all the in-door work, and manufacture the mats and tapa.

They are cleanly in their habits, and bathe daily; after which they anoint themselves with oil and turmeric. This custom, I have no doubt, tends to preserve the health by preventing the excessive perspiration which the heat of the climate naturally brings on. It is, however, at times offensive, for the oil is apt to become rancid.

The Samoans are of a social disposition, more so, indeed, than the other natives of the Polynesian islands, and they are fond of travelling. The reasons they have for taking these journeys are various: thus, when there is a scarcity of food in one part, or a failure of the crops, they are in the habit of making a "faatamilo," or circuit, around a portion of these islands, so that by the time they return, (which is at the expiration of three months,) their own taro has grown and the bread-fruit season come around. They are now in their turn prepared to afford the same hospitality and accommodation to others. The old people are usually left at the village to take care of it, whilst the younger portions are gone on one of these malangas, or journeys. During these expeditions, a sort of trade is frequently carried on. The dif-

ferent portions of the inhabitants are each celebrated for a particular staple. Some excel in making mats; others in building canoes; the districts in which the sea-ports are, obtain a variety of articles from ships, which are subsequently distributed over the whole group.

It may readily be supposed that there are many circumstances which make this mode of communication inconvenient, particularly when the travelling party is a large one, in which case it absolutely breeds a famine in its progress.

I have before stated that every village has its "fale-tele," which is the property of the chief. In this their "fonos" or councils are held, and it is also the place where strangers are received. The mode of receiving visitors is attended with much ceremony. A party enters the village without inquiring where or how they are to be entertained, and take up their quarters in the "fale-tele." In a short time the chief and principal personages collect and visit the strangers, telling them in a set speech the pleasure they enjoy at their arrival, and their delight to entertain them. This is mostly said in what they term "tala-gota," the speech of the lips, and much complimentary language ensues. The Samoan language abounds in phrases adapted to this use, and worthy of a refined people.

After this interchange of compliments, the young women assemble to treat the strangers to "ava." This is prepared after the usual mode, by chewing the piper mythicium. During this time the young men are employed collecting and cooking food. This is all done with great despatch. The pigs are killed; the taro collected; the oven heated; and baskets made to hold the viands. In the feast they are well assured of sharing, and therefore have a strong stimulus to exertion.

The strangers, on receiving the food, always return part of it to the entertainers. Thus all the village is occupied with the entertainment, and a scene of frolicking ensues until the strangers see fit to take their departure.

Among the heathen, dancing during the evening always follows this feast; but the Christian villages have abolished all dancing.

These visits are not always paid or received in a spirit of hospitality. The chief of a powerful district takes this mode to exact tribute from his less powerful neighbours, and they are on such occasions extremely overbearing and insolent to their entertainers.

For crimes, they have many forms of punishment, among which are: expulsion from the village in which the offender resides; exposure of the naked body to the sun; flogging; cutting off the ears and nose; confiscation of property; and the compulsory eating of noxious herbs.

When a murder has been committed, the friends of the person slain unite to avenge his death; and the punishment does not fall upon the guilty party alone, but on his friends and relatives, who with their property are made the subjects of retaliation. If any delay in seeking redress in this manner occurs, it is received as an intimation that the injured party, whether the family, the friends, the village, or whole district to which the murdered person belonged, are willing to accept an equivalent for the wrong they have sustained. The friends of the murderer then collect what they hope may be sufficient to avert retribution, and a

negotiation is entered into to fix the amount of compensation. When this is agreed upon, it is offered to the nearest relative of the deceased, and the parties who present it perform at the same time an act of submission, by prostrating themselves before him. This closes the affair.

For some crimes nothing but the death of the offender could atone. Among these was adultery; and when the wives of chiefs eloped with men of another district, it generally produced a war. This was one of the causes of the wars waged by Malietoa.

There existed, however, means by which the code was rendered less bloody, in places of refuge for offenders, such as the tombs of chiefs, which were held sacred and inviolate.

Wars were frequent among the Samoans before the introduction of the Gospel, and scarcely a month passed without quarrels being avenged, and with blows. The last and perhaps the most bloody war that has ever occurred on these islands, was about the time of the first visit of Mr. Williams, the missionary, in 1830, when the inhabitants of one of the finest districts, that of Aana, in the western part of Upolu, were almost exterminated. This war continued for eight months, and only those were saved who escaped to the olos, or inaccessible places of refuge, or were protected by the "Malo," the ruling or conquering party.

When the missionaries arrived, in 1836, and for upwards of a year afterwards, Aana was without a single inhabitant; but through their influence upon the Malo party, it was agreed at a large "fono" to restore the exiles to their lands. Aana is again (in 1839) the finest part of the island, and will be in a few years quite a garden.

These wars, like those of all savage people, were attended with great cruelty, and neither old nor young of either sex were spared. It is related that after the last battle of Aana, a fire was kept burning for several days, into which hundreds of women and children were cast.

Their wars were seldom carried on in open fight, but stratagem was resorted to, and all enemies that could be attacked were killed, whether in their houses, or when accidentally met with at their work in the taro-patches.

Their arms consisted of clubs and spears, made of the iron-wood (casuarina), bows and arrows, and of late years, the musket. The man who could ward off a blow, and at the same time inflict a wound on his adversary, was considered the best warrior. Each village had its separate commander, and there was no general, their operations being from time to time decided in council. Their spears were pointed with the sting of the ray-fish, which, on breaking off in the body, caused certain death.

The olos, above mentioned, were usually on the top of some high rock, or almost inaccessible mountain, where a small force could protect itself from a larger one. One of these olos, or strongholds, of the people of Aana, during the late war, was on a high perpendicular ridge, which forms the western boundary of the bay of Faleletai, and it was the scene of many a bloody contest. The Manono people, coming by night, would land at the foot of the hill, and attempt its ascent, while those on the top would roll and hurl down stones, generally overcoming them with ease, and driving

the invaders back with great slaughter. The latter, however, took a fearful and truly savage revenge for their various defeats. Laying in wait until the women came down to fish on the reefs, they set upon them, and massacred them all. The burning of houses, the destruction of the bread-fruit, coconut trees, taro-patches, and yam-grounds, &c., were the ordinary features of these conflicts.

Upon the occurrence of a cause of war, the parties sent to their respective friends in the different towns to solicit their aid. Such solicitations usually resulted in the whole district, and sometimes the whole of the island, being engaged in a civil war.

On going to war, they were accustomed to cast their hair loose, or to tie it up in various forms; and to add to the fierceness of their appearance, they wore large bunches of false hair, which also increased their apparent height.

In making peace, the conquered party was required to make submission, by bringing loads of stones, fire-wood, and green boughs, and to bow down very abjectly in the presence of the chief. They were also required to pay a large amount of tapa, mats, and other property.

The government of the Samoans is more refined in principle than could well be expected. The rule of hereditary chiefs is acknowledged, and the distinction of the several classes well defined. Great respect is paid to the chiefs, and particularly to the "tupu," or highest class. To this belong Malietoa, Pea of Manono, &c. The second class consists of the near relatives of the first, and of others who have large possessions; the third, of the petty chiefs of villages; next come the tulafales, who are a well-defined class between the chiefs (alii) and common people. These tulafales are proprietors of the soil, and householders; they possess considerable influence, and act as advisers of the chiefs, and the executors of their orders. Like the chiefs, they derive their rank from descent. There is no distinct name for the common people as a class, but the chiefs in speaking of them always apply some opprobrious epithet. The son of a low-born woman by a chief ranks as a chief, although he has no authority; and the son of a noble woman by a man of mean birth, may be either a chief or a commoner.

The lands are allotted and distinguished by known boundaries. The natural heir of the former owner succeeds, and is the feudal chief or leader in war, but all his dependants are free to cultivate it. Lands may be sold, which is done at public meetings, and the bargain is made binding by sticking their staves into the ground, or digging a portion of it up.

The whole power lies in the high chiefs of the "Malo" or conquering party. They assemble in fono, and determine the general laws and rules of action. At the head of this is Malietoa, who is now considered the head chief of Atua, and is supposed will shortly acquire that of Tui of Aana. Each of these districts formerly had a separate chief, bearing the same title of Tui, but in their wars with Manono, nearly all the descendants of these princes were killed off. To obtain this title requires the consent of the chiefs of Manono, and part of Savaii, which belongs to the ruling party.

The fono may levy what contributions it pleases,

particularly on those they have conquered. The present "Malo" or government is designated "Malo-to-toa"—the gentle government.

Although there is no supreme authority acknowledged in any one individual, yet there are instances of chiefs of districts assuming and maintaining it. The late Tamafago, of whom some account has already been given, was one of these. He assumed the attributes not only of a king, but of a god, and after conquering a rival district on Savaii, he took, as has been stated, the name, "O le Tupu o Savaii"—the King of Savaii. After he was killed, Malie-toa succeeded to the same title; but it now confers no power, and is considered merely as complimentary.

Each district and town has its own government. An elderly chief generally presides, or is considered as the head of the village, town, or district. In these primary fonos or meetings, the affairs are generally discussed by the alii (chiefs) and tulafales (landholders), and what they determine on is usually followed. The great fono, or general assembly, is seldom called, except on matters affecting the whole of the island or district. The subject is calmly debated, and most thoroughly discussed; the final decision, however, is not by vote, but is adopted after consultation, and is governed by the opinions of the most influential chiefs. It thus appears that these assemblies have little influence upon the course the chiefs may have determined to pursue, and serve chiefly to insure the united action of the district in carrying the designs of the chiefs into effect. The tulu-fano or decree, promulgated by the council, is to be obeyed, and those who fail are punished by the Malo, being plundered by them of their lands, &c.

In the descent of the office of chief, the rule of primogeniture is not strictly followed, but the authority and title always remain in the same family.

It is the custom at the fonos to compliment the head chiefs, and invoke blessings on them in prayers, that their lives may be prolonged and prosperous. I was informed that these assemblies were conducted with much ceremony, but I was much disappointed in the one I witnessed. The forms of proceeding may, however, be different when strangers are not present. The fonos generally begin at an early hour in the morning, and last until late in the afternoon. One of the most pleasing of the ceremonies is that in which the chiefs are supplied with food during the time the meeting is in session. After the food is prepared and dished in fresh banana-leaves, the wives and daughters of the chiefs attire themselves in their best dresses. They then enter the fale-tele, and approach their fathers, husbands, and brothers, &c., before whom they stop, awaiting their instructions as to whom they shall hand the viands. When they have obeyed their directions, they retire. The whole duty is conducted with the utmost decorum, and while it is going on, no conversation is permitted except in a low voice. I learned from the missionaries who had attended some of their meetings, that the manner of speaking was good, and the self-possession of the orators remarkable. The speakers generally have persons near them who act as a sort of prompters, and remind them of the subjects it is desirable they should speak of. The whole proceedings are conducted with the utmost quiet, and no disturbance is allowed.

CHAPTER XVI.

NEW SOUTH WALES.

DEPARTURE FROM THE SAMOAN GROUP—WALLIS ISLAND—TUVAI PUT ON SHORE—HOORN ISLAND—MATTHEWS' ROCK—REMARKABLE THUNDER-STORM—BALL'S PYRAMID—PORT JACKSON ENTERED—ARRIVAL AT SYDNEY—VISIT TO THE GOVERNOR—PORT MACQUARIE—FATE OF MR. WILLIAMS—DESCRIPTION OF THE TOWN OF SYDNEY—ITS STREETS—ITS RESEMBLANCE TO AMERICAN TOWNS—PREVALENCE OF INTOXICATION—GOVERNMENT-HOUSE—DRIVE TO SOUTH HEAD—PUBLIC GROUNDS—MR. CUNNINGHAM THE BOTANIST—HIS MELANCHOLY FATE—COUNTRY AROUND SYDNEY—GENERAL DESCRIPTION OF THAT COLONY—ILLAWARRA—DROUGHTS AND FLOODS—RIVERS OF NEW SOUTH WALES—ITS MINERAL PRODUCTS—ITS WATER—ITS CLIMATE—ITS TEMPERATURE—PREVAILING WINDS—ITS VEGETATION—MONOTONY OF ITS SCENERY—SOIL OF SYDNEY—HORTICULTURAL EXHIBITION—NATIVES OF AUSTRALIA—THEIR NUMBERS—THEIR PHYSICAL TRAITS—THEIR CHARACTER—THEIR CONFLICTS—THEIR CORROBORY DANCES—THEIR WEAPONS—THEIR MODE OF CLIMBING—THEIR SOCIAL SYSTEM—THEIR CUSTOM OF "MAKING YOUNG MEN"—THEIR MARRIAGES—BURIAL OF THEIR DEAD—ARRIVAL OF CONVICT SHIP—PRISON FARE ON BOARD—EVILS OF THE SYSTEM—PUNISHMENTS—DEPARTURE FROM SYDNEY—PREPARATIONS FOR ANTARCTIC CRUISE.

On the 10th of November we weighed anchor from Apia, and made all sail to the westward; and on the 11th had lost sight of Savaii. Officers were stationed for the three following nights to look out for the periodic showers of meteors, but the nights were cloudy, and none were seen.

On the 12th we made Uea or Wallis Island, and at 3 P.M. were off its southern end, which is situated in latitude 13° 24' S., longitude 176° 9'

22' E. Instead of a single island as might be expected from the name, there are nine separate islands, varying in circuit from one to ten miles, and enclosed with one extensive reef. The land is, in general, high. We made a running survey of this group.

While off Wallis Island, we were boarded by a canoe, in which was a native who spoke a little English. I had thus the means of communicating

with the shore, and resolved to take advantage of it by landing the prisoner Tuvali. I conceived that this would accomplish all the ends I had in view in removing him from his native island, particularly as the course of the wind is such, for the greater part of the year, as to prevent canoes proceeding from Wallis Island to the Samoan Group, and there is in consequence no communication between them. His fate would of course remain a mystery to his countrymen, and the impression I had hoped to produce on their minds would be effectually made. My original intention had been to land him at Hoorn Island, which is two days' sail further to the south; but a similar opportunity might not perhaps have presented itself there.

Having decided on this course, I committed him to the charge of the person who had boarded us, and gave particular directions that he, with his rolls of tapa, should be immediately taken and presented to the chief. The customs of the islanders promised that this would insure him good treatment, by giving him at once a protector; or at least that he would be only robbed by a single person, and not exposed to the pillage of the whole population, who would in all probability have stripped him of his property the instant he landed, if not restrained by the authority of a chief.

Tuvali seemed delighted at being released from his confinement on ship-board, and took his leave by shaking hands with the sentry. Thus, while the culprit has not been exposed to any unnecessary severity of punishment, I feel satisfied that I fully accomplished my object of convincing his countrymen that they could not hope to commit murders upon their white visitors with impunity.

These islands appear to be well wooded, and we saw many large native houses upon them. As we drew near, we perceived upon a rocky flat a few natives waving a white flag. The native who came on board informed me that the inhabitants were numerous, and that among them there were ten white men.

The entrance to the lagoon is on the south side of the Group, and the pilot, if so he may be called, informed me that there was ample room for the ship to pass within the reef. Wood, water, and refreshments may be obtained here.

Hoorn Island we made the following day. It was discovered in 1616 by Schouten and Le Maire. Its highest point is two thousand five hundred feet above the sea; on its northern side many rocks are visible, and the whole surface appears bold and precipitous, affording, as far as we could perceive, little soil for cultivation. Cocoa-palms in considerable numbers, were, however, observed upon a low point projecting from its southern side. This island is inhabited, and I have been informed that an unsuccessful attempt to establish a mission upon it was made by the Catholics in 1840.

On the 18th we saw Matthews' Rock, whose height we ascertained to be 1186 feet. It is of a conical shape, about a mile in circumference, and principally composed of conglomerate. A dike of basalt was observed occupying about a third of the width of the island. In order to obtain specimens, a boat was despatched to endeavour to effect a landing: the undertaking proved difficult, but was accomplished by Dr. Fox and Midshipman Henry, who swam through the surf. They brought off some specimens of porphyritic rock, and a few

small crystals of selenite. Patches were seen on the northern side of the island appearing as if covered with sulphur. As has been so often mentioned in speaking of other uninhabited islands, great numbers of birds were seen upon and around it. This island is in latitude $22^{\circ} 27' S.$, longitude $172^{\circ} 10' 33'' E.$

On the 26th November we made Ball's Pyramid, which appears to be a barren rock rising abruptly from the sea.

At sunset on the 29th of November we made the light-house on the headland of Port Jackson. We had a fair wind for entering the harbour, and although the night was dark, and we had no pilot, yet as it was important to avoid any loss of time, I determined to run in. I adopted this resolution, because, although we were all unacquainted with the channel, I was assured that the charts in our possession might be depended upon, and I stood on under a press of sail, accompanied by the Peacock. At 8 p.m. we found ourselves at the entrance of the harbour. Here a light erected on a shoal called the Sow and Pigs, since the publication of the charts, caused a momentary hesitation, but it was not long before it was determined where it was placed, and with this new aid, I decided to run up and anchor off the Cove. In this I succeeded, and the Peacock, directed by signal, followed the Vincennes. At half-past 10 p.m. we quietly dropped anchor off the Cove, in the midst of the shipping, without any one having the least idea of our arrival.

When the good people of Sydney looked abroad in the morning, they were much astonished to see two men-of-war lying among their shipping, which had entered their harbour in spite of the difficulties of the channel, without being reported, and unknown to the pilots. Their streets were speedily alive with our officers and men, who were delighted at finding themselves once more in a civilized country, and one where their own language was spoken.

The Porpoise and Flying-Fish arrived the next day.

Our consul, J. W. Williams, Esq., came early on board to welcome us. He communicated the information that the Relief had arrived safely, and landed all our stores, which were ready for us and close at hand; after which, and about ten days before our arrival, she had sailed for the United States.

Our arrival was duly announced by an officer, and through him I was informed that the governor, Sir George Gipps, would be happy to receive me at eleven o'clock. In compliance with this intimation, I had the honour of waiting upon his excellency at that hour, in company with Captain Hudson, and our consul. I made my apologies for having entered the harbour in so unceremonious a manner, and stated the reasons why I could not tender the customary salutes.

The reception I met with was truly kind: every assistance which lay in his power was cordially offered; and I was assured that I had only to make my wants known to have them supplied. The use of Fort Macquarie was immediately granted me for an observatory, a position which, being within hail of my ship, gave me great facilities for conducting my experiments, and at the same time superintending my other duties.

I may in this place acknowledge the open-hearted welcome we met with from all the government officers, military and civil, as well as from the citizens. Our reception was gratifying in the extreme, and cannot be too highly appreciated. The Australian Club was thrown open to us by its committee, and parties, balls, &c., were given in our honour; in short, all our leisure time was fully occupied in the receipt of these hospitable attentions.

The day after we anchored at Sydney, the brig Camden also arrived. By her we learned the melancholy intelligence of the death of the Rev. Mr. Williams, from whom we had parted so short a time before at the Samoan Group. He was then, as will be recollected, about setting forth to propagate the Gospel among the savages of the New Hebrides, and was in full health and high spirits, in the ardent hope of success in his mission. My information in respect to this sad event, was derived from his associate, Mr. Cunningham. They had placed native missionaries at Rotuma and Totoona. Mr. Williams then landed at Tanna, which they found in a high state of cultivation, and where they were hospitably received by the natives. These were Papuans, and spoke a language much like that of the Hervey islanders. At Tanna, Samoan missionaries were also left, and they thence proceeded to Erromango. Here they found a barren country and a different race of men, black, with woolly hair, who did not comprehend a word of any of the languages known to the missionaries.

The natives, although apparently suspicious, exhibited no symptoms of actual hostility. Mr. Williams, with Mr. Harris, Mr. Cunningham, and the master of the vessel, landed, and were strolling about, amusing themselves with picking up shells. While thus engaged, they had separated from each other, and Messrs. Harris and Williams were in advance of the others. On a sudden the war-shout was heard, and Mr. Harris was seen running, pursued by a crowd of natives. He was soon overtaken by them, and killed. Mr. Williams then turned and endeavoured to reach the boat, but he had delayed too long, and although he reached the water, he was followed into it and slain also.

Mr. Cunningham and the captain escaped, although with difficulty, and after some fruitless attempts to recover the body, left the island. Mr. Cunningham was of opinion that the attack had not been premeditated, but arose from a sudden desire to obtain possession of the clothes of the persons who were on shore; he was also satisfied that a single loaded musket in the hands of those left in the boat, would have been the means of saving these two valuable lives.

I had, in a conversation with Mr. Williams at Upolu, expressed my belief that the savage inhabitants of the New Hebrides would not be safely visited without the means of defence. He had in reply declared himself averse to the use of fire-arms or any other weapon in the propagation of the Gospel; being of opinion that it would be more easily and effectually disseminated without them.

The missionary cause has sustained a great loss in Mr. Williams's death; for in him were united a true spirit of enterprise and fervent zeal, with great perseverance and a thorough knowledge of the native character. I still think with melancholy

pleasure of the acquaintance I had the good fortune to form with him.

The town of Sydney may, for convenience of description, be considered as divided into two parts; the line that separates them coincides nearly with that of George Street, the Broadway of Sydney. The old town lies on the east side of this line, and occupies the eastern promontory of the Cove; it is the least reputable part, and is almost filled with grog-shops and brothels, except at its extreme eastern quarter, where there are a few genteel buildings, in agreeable situations. The streets to the south and west of George Street are well laid out, and are rapidly filling up with good houses.

The houses of Sydney are for the most part well built and commodious. On the western side of the town are many handsome buildings and extensive public grounds; towards the eastern side is a large square, called Hyde Park, upon which are situated the offices of the colonial government, the church of St. James, and the Catholic cathedral.

Sydney contains about twenty-four thousand inhabitants, which is about one-fifth part of the whole population (120,000) of the colony; and about one-fourth of this number are convicts. In truth, the fact that it is a convict settlement may be at once inferred from the number of police-officers and soldiers that are every where seen, and is rendered certain by the appearance of the "chain-gangs." The latter reminded us, except in the colour of those who composed them, of the coffee-carrying slaves at Rio; but the want of the cheerful song, and the apparent merriment which the Brazilian slaves exhibit in the execution of their tasks, was apparent.

When viewed from the water, Sydney appears to great advantage. It lies on the south side of the harbour, and covers two narrow promontories, separated and bounded by coves. The ground rises gradually, and thus exhibits its buildings to great advantage, giving it the air of a large commercial city. It is chiefly built of a drab-coloured sandstone, resembling that employed in the new public buildings at Washington, but of a lighter hue. Red brick is also used in building, and the suburbs contain many neat cottages and country-seats. The sandstone is a beautiful material, but is not very durable. The view of the town is diversified with the peculiar foliage of Australian trees, among which the pines of Norfolk Island and Moreton Bay are most conspicuous. At the time of our arrival, the trees were infested with locusts (*cicada*), which made a noise absolutely deafening. The sound this insect produces is the same as that made by the analogous species in the United States, but is continued here during the heat of the day, and ten times more deafening.

Handsome equipages abound; and the stage-coaches are numerous. These, with the costume and demeanour of the more respectable part of the population, struck us as being more like what is seen in our towns than in those of Europe. Every thing has a new look about it, and the people manifest more of the bustle and activity of our money-making and enterprising population than are to be seen in old countries. The acquisition of wealth seems to be the only object of all exertion here, and speculation was as rife as we had left it in the United States. Cutting down hills, filling up valleys, laying out and selling lots, were actively going on.

There are, in truth, many particulars in which the people of Sydney resemble those of America. This is observable, among other things, in the influence of the public press. In Australia, however, it is more licentious than any except the lowest of our newspapers; taking unwarrantable liberties with private character, and is far from being remarkable for discrimination.

In one particular, a most striking difference is to be observed between the scenes to be witnessed at Sydney, and in the cities of the United States. This consists in the open practice of the vice of drunkenness, which here stalks abroad at noonday. It is not rare at any time, but on holidays its prevalence surpasses any thing I have ever witnessed. Even persons of the fair sex (if they may be so called) where there to be seen staggering along the most public streets, brawling in the houses, or borne off in charge of the police. However highly coloured this picture may be thought, it is fully corroborated by the police reports of the Sydney papers on Monday mornings. The police-officers themselves are among the venders of the intoxicating liquid.

The facilities for indulgence in this vice are to be seen every where in the form of low taverns and grog-shops, which attract attention by their gaudy signs, adapted to the taste of the different orders of customers, as the "King's Arms," the "Punch-Bowl," the "Shamrock," the "Thistle," the "Ship," the "Jolly Sailors." Of these, two hundred and fifty are licensed by the government, or more than one to each hundred souls. Among them a small shop was pointed out which from the extent of its custom yielded the enormous amount of 200*l.* for rent to its owner annually, a sum far beyond the apparent value of the whole property. The quantity of rum which is consumed in the colony may be estimated from the facts, that the revenue derived from its importation was in 1838, 189,450*l.*, and that the supply amounts nearly to eight gallons annually for every individual in the colony.

It is related, that a highly respectable individual transmitted complaints against Governor Macquarie to the home government; and that, by way of answering these expostulations, the reply of the governor was: "There are but two classes of persons in New South Wales, those who have been convicted, and those who ought to be."

The old government-house, where I had the honour of seeing Sir George Gipps, is a low, cottage-shaped building, which has no pretensions to beauty, and appears to have been built at different times, having been enlarged as often as additional accommodation was needed. During the summer months the governor resides at the government-house at Paramatta.

A new palace or government-house is at present building in the public grounds which lie to the eastward of the old one, from which a road extends through them towards the South Head of Port Jackson. This road is the usual promenade and drive of the citizens of Sydney. After leaving the government domain, it enters Woolloomooloo, a region covered with the country-seats and cottages of the higher classes, which although originally little more than a barren rock, has been brought into a high state of cultivation by its occupants. The drive in this direction may challenge compari-

son for beauty with any part of the world. It presents innumerable and picturesque views of the noble bay, and of the promontories that jut into it, occupied by mansions and ornamental grounds. On reaching the South Head, a view of great beauty is also seen. The point thus named, is a bold headland, about two hundred and fifty-four feet in height, on which stands the light-house, a fine tower, with a brilliant revolving light.

The public grounds are in part occupied by a botanical garden, which was laid out by Mr. Cunningham, the botanist of the colony, to whose memory a monument is about to be erected in the garden, which is itself a memorial of his fine taste, and his successful cultivation of the science he professed. Mr. Cunningham perished by a melancholy death, which is still spoken of with regret. He had, in his capacity of botanist, accompanied Major Mitchell, the surveyor-general of the colony, on a tour of exploration in 1835. In the pursuit of his researches, he wandered from the party, and did not return. As soon as he was missed, the native guides were sent in search of him, but returned without having succeeded in finding his traces. Major Mitchell then instituted a fresh search, in which the tracks of Mr. Cunningham's horse were found, and followed for ninety miles. Within this space three places were seen where he had stopped and encamped. From the last of these, the tracks of the horse were again followed, until the carcass of the animal was found dead through fatigue and starvation, with the whip tied to the bridle, and all his accoutrements about him. Retracing their steps to his last encampment, they ascertained, on close examination, that he had there killed his dog for food, and his footsteps were seen as if making rapid strides for the bed of a river, which he had followed to a pool, into which he had plunged. Further down the river, some shells were found near the remains of a fire, which had evidently been kindled by a white man. Here all further traces of him were lost, and the search abandoned in despair.

Some months afterwards a second search was made by Lieutenant Vouch. In the course of this, some natives were taken near the Brogan river, in whose possession a part of Mr. Cunningham's clothing was found. They stated that a white man had come to them in a state of great exhaustion; that he was hungry, and they fed him, but that during the night they had become afraid, and killed him. The body was never found.

Lieutenant Vouch inferred that Mr. Cunningham had become deranged by the severity of his sufferings, and that this had caused him to wander about at night, which, with other suspicious movements, had alarmed the natives, who, under the influence of their terrors, had murdered him.

Thus ended the useful life of one who had raised himself to eminence by his own exertions, and had by his virtues and scientific acquirements gained the esteem of all the pure and good of the colony, by whom he will be long affectionately and honourably remembered.

At the end of the walk around the government domain, the following inscription is calculated to excite a smile: "Be it recorded, that this road round the inside of the government domain, called Mrs. Macquarie's Road, so called by the governor on account of her having originally planned it,

three miles and three hundred and seventy-seven yards in length, was finally completed on the 13th day of June, 1816."

Governor Macquarie has literally put his mark on the town of Sydney, where hardly a single street, square, or public building can be passed, without seeing his name cut in stone.

The aspect of the country around Sydney is sufficient to prove that New South Wales is very different, in its general features, from other parts of the globe. This is chiefly owing to two causes: the aridity of its climate, and the prevalence of sandstone rock. This rock may be readily examined at the Heads of Port Jackson, and on the shores of the many coves that surround this beautiful harbour. Its colour is pale yellow or drab, and it lies in beds nearly horizontal and of various thickness, whose upper surface, except where broken by ravines and water-courses, forms a tableland. The average elevation in the neighbourhood of Sydney is from three hundred and fifty to four hundred feet. At this level it extends in gentle undulations to a great distance inland.

This arid soil yields but a scanty growth of vegetable products, which, consisting of burnt pasture, and thinly-scattered trees and shrubbery, give to the whole region a look of desolation. The grass does not every where conceal the bare rock, and the thin soil supports only a few gum-trees (eucalypti), and bushes. Throughout the wide plain there is little to relieve the eye, except here and there a small cultivated spot.

In consequence of this aridity there are many continuous miles of waste lands in New South Wales which by the inhabitants are called "forests." These are very different from what we understand by the term, and consist of gum-trees (eucalypti), so widely scattered that a carriage may be driven rapidly through them without meeting any obstruction, while the foliage of these trees is so thin and apparently so dried up as scarcely to cast a shade. Thus miles may be traversed in these forests without impediment. A few marshy spots are occasionally seen, covered with thickets of brush; and in other places there are tracts so dry that even the gum-tree will not grow upon them, and which receive the direct and scorching rays of the sun.

The most remarkable part of New South Wales is the district of Illawarra, situated on the coast, about sixty miles to the south of Port Jackson. This is a narrow strip, that seems to be formed by the retreat of the sandstone cliffs from the sea, to a distance which varies from one to ten miles. The cliffs or mountains vary in height from one thousand to two thousand feet. This region is extremely fruitful; its forests are rich with a great variety of foliage, and of creeping plants which twine around the trees. The great size and number of the trees served to remind the gentlemen who visited it, of the vegetation of the tropical islands, luxuriant with tree-ferns, bananas, banyans, &c. This luxuriance is in part owing to a rich and light soil, composed of decomposed basalt and argillaceous sandstone, mixed with vegetable mould, but more to the peculiarity of its climate. The high cliffs which bound it to the west, keep off the scorching winds which reach other parts of the coast from that quarter, and the moisture of the sea-breeze intercepted by them is condensed,

falling in gentle showers. For this reason, it is not subject to the long and frequent droughts that occur in other parts of New South Wales.

These droughts are sometimes of such long continuance, that we at one time read of the whole country having been burnt up for want of rain, a famine threatened, and the sheep and cattle perishing in immense numbers.

These have been succeeded by long-continued rains, which have raised the rivers thirty or forty feet, flooded the whole country, deluged the towns and villages, and completely destroyed the crops. Such floods carry with them houses, barns, stacks of grain, &c., drown the cattle, and even the inhabitants are in some cases saved only by being taken from the tops of their houses in boats.

The year of our visit, 1839, added another instance to the list of disasters of the latter kind; and the published accounts state that twenty thousand sheep were lost in the valley of the Hawkesbury by the floods. Such evils indeed appear to be of frequent occurrence, and the settler in New South Wales has to contend with the elements in an unusual degree.

Such disasters are equally injurious to the husbandman and the wool-grower; for the same cause that destroys the crops, also carries off the stock, so that it is only the large capitalist who can successfully struggle against or overcome such adverse circumstances. It is some recompense for this state of things, that one or two favourable years will completely repay all former losses; and it is due to the perseverance and industry of the inhabitants of New South Wales to say, that they have already, in spite of the difficulties they have had to encounter, made it one of the most flourishing colonies on the globe.

In seasons of drought, the flocks and herds are driven into the interior. The year of our visit (1839) was accounted a wet one, and some parts of the sandstone district which produced good crops of grain * in drier seasons would have been dry to barrenness.

In such a climate it is not surprising that there are hardly any streams that merit the name of rivers. It is necessary to guard against being misled by the inspection of maps of the country, and forming from them the idea that it is well watered. Such an impression would be erroneous, and yet the maps are not inaccurate; streams do at times exist in the places where they are laid down on the maps, but for the greater part of every year no more is to be seen than the beds or courses, in which, during the season of floods, or after long-continued rains, absolute torrents of water flow, but which will within the short space of a month again become a string of deep pools. Were it not for this peculiar provision of nature, the country for the greater part of the year would be without water, and, consequently, uninhabitable.

The principal rivers which are found to the east of the Blue Mountains are, the Hunter, George, Shoalham, and Hawkesbury. None of these streams are navigable further than the tide flows in the estuaries, which sometimes extend twenty or thirty

* In the diluvial flats along the rivers, the wheat crop is usually about twenty-five bushels to the acre. Forty to forty-five bushels have been obtained, but such crops are very unusual.

miles inland, for beyond them they are usually no more than twenty inches in depth. Each of these streams has numerous tributaries, which drain a large area of country, and during heavy rains the main branches are suddenly swelled, and cause the floods which have been spoken of. To the west of the mountains, the water-courses are of a very different character. The Darling, for instance, through a course of seven hundred miles, does not receive a single tributary, although it is said to drain an extent of sixty thousand square miles. It possesses the other character which has been mentioned, of being frequently reduced to a mere string of pools. The Darling, Morrumidgee, and Lachlan, unite about one hundred miles from the ocean, and their joint stream is known by the name of the Murray, which after passing through Lake Alexandria, enters the sea at Encounter Bay. The surface drained by these streams is about two hundred and fifty thousand square miles.

Another remarkable occurrence observed in these western waters, is the disappearance of a river in swampy lands, where, as is supposed, it is swallowed up by the caverns in the limestone rocks. This is the case with the Macquarie, which has its source near Bathurst.

According to all accounts, salt is very generally diffused throughout New South Wales, and even all Australia. It has been reported as being found in masses in the sandstone, but no specimens of it were obtained by the expedition. Scarcely a well is dug in the interior which is not brackish; and, according to Major Mitchell, Captain Sturt, Oxley, and others, many of the rivers are quite saline in parts of their course. The northern tributaries of the Hunter and Darling are instances of this.

The lakes are also said to be saline, and in some instances sufficiently strong to afford a large and profitable yield of salt; but being very far in the interior, and without the means of transportation, they are of little value. Along the south coast of Australia, such lakes are described as existing near the sea, and may possibly prove of some value to that portion of New Holland.

Lead and iron have been found in small quantities; the deposits of the former are all trifling. Those of the latter afford too impure an ore, and not in sufficient abundance, to be worked.

The minerals stated to be found in Australia, specimens of which were procured for the expedition, are chalcedony, agates, jasper, quartz, augite, and stilbite; feldspar, arragonite, gypsum, chlorite, mica in granite; sulphur and alum, galena and plumbago, magnetic iron, iron pyrites, and basalt.

Fossils appear to be confined to particular localities, but are by no means rare.

Columns of basalt of great regularity are found on the coast of Illawarra, but the articulations are all plane.

The water is much impregnated with alum and iron, and its use is avoided by the inhabitants.

Deserts covered with saline plants are said to be frequently met with.

The climate of Australia may be considered generally as very dry; the irregularity of the rains, and the nature of the soil, all prove that it is so; yet the aridity is not marked, as in other countries, by a general tendency in the plants to produce thorns, although the peculiarity of the vegetation makes the dryness apparent in other ways. From

all accounts, New South Wales is subject to as great atmospheric vicissitudes as the middle United States. For a series of years, droughts will occur, which in turn give place to years of successive floods, and these prevail to an extent that can hardly be credited, were it not that the account has been received from good authority. As a striking instance of it, Oxley, in his exploring journeys into the interior, in 1817, found the country every where overflowed, so as to prevent him from proceeding; while Mitchell, in 1835, in the same districts, was continually in danger of perishing from thirst. The latter states that he found unios (or fresh-water mussels) sticking in the banks of rivers and ponds above the level of the water; and also dead trees and saplings in similar situations.

This alternate change must exert a great influence on the productions of the soil; the rivers ceasing to flow, and their beds becoming as it were dry, with the exception of the pools heretofore spoken of, must likewise have an influence. The prevailing westerly winds sweep with force over the whole country, blighting all they touch. The effect of these hot winds is remarkable, for they will in a few hours entirely destroy the crops by extracting all the moisture from the grain, even after it is formed, and almost ready for harvest; and the only portion that is left is that which has been sheltered by trees, hedges, or fences. They thus destroy the prospect of the husbandman when his crops are ready for the sickle. It is thought, and I should imagine with reason, that were the Blue Mountains a more lofty range, this would not be the case, as they would have a tendency to continue the supplies to the streams throughout the year, by the condensation of the vapour from the sea.

These hot winds come from the direction of the Blue Mountains, and what seems remarkable, are not felt on the other side of the mountains, or in their immediate vicinity. Yet the extent between the coast and the mountains is not sufficient to produce these winds, being only forty-five miles; and if they proceed from the interior, they must pass over those mountains, an elevation in some places of three thousand four hundred feet. Their great destructiveness is undoubtedly caused by their capacity for moisture, although few observations have as yet (as far as I was able to obtain information) been made upon them, except in relation to the blight they occasion. It has been found that fields which have a line of woods on the side whence they blow, escape injury. The harvest immediately on the line of the coast does not suffer so much, being exempted in part from their withering influence by the moisture that is imbibed from the sea.

There is a portion of this country that is an exception to the general rule of aridity, namely, the district of Illawarra. This forms a belt of from one to ten miles wide, and has the range of the Kangaroo Hills just behind it, of one thousand feet; these are sufficiently high at this distance from the coast to condense the moisture, and also to protect the district from the blighting effects of the blasts from the interior.

One is entirely unprepared for the alleged facts in relation to this country; for instance, Mitchell in his journey to the south and west, during the

four winter months, witnessed no precipitation of moisture except frosts in the mornings, and the thermometer was often below the freezing point. Violent winds occur, which have obtained the name of brick-fielders. They are nothing more than a kind of gust, peculiar to the environs of Sydney, after a sultry day. During one of these gusts little or no rain falls, though the wind frequently approaches a hurricane in force. These winds get their name from bringing the dust from the brick-fields, formerly in the suburbs of Sydney, but which are now almost entirely built over. The temperature during the blow generally falls twenty or twenty-five degrees, in the space of as many minutes; the dust is very great, and the wind so strong, as to cause apprehension lest the houses should be unroofed, or the chimneys thrown down. Our standard barometer was carefully watched during the coming on of two of these gusts, and found to fall 0·200 in., the first time, and the second only 0·020 in.; but the temperature fell each time about ten degrees. They were not, however, true brick-fielders, or such as a resident would so denominate.

Snow has been known to fall in Sydney, but so rarely, that we were told some of the inhabitants were doubtful as to its nature. On the mountains it is not uncommon, and in the winter season is always seen on those in the New England district, which, although three or four degrees to the northward of Sydney, enjoys a much cooler climate.

I found at Sydney a great variety of opinions existing about the climate. During our stay, the weather was unfavourable for all astronomical observations, and almost the whole time cloudy or rainy. It was amusing to find many of those to whom I had the pleasure of an introduction, apologizing for the badness of the weather. It brought forcibly to my recollection, the fault that Captain Basil Hall finds with the people of the United States, but was far from being annoying to me. I have but little doubt that the climate is, generally speaking, a healthy one, and not unlike that of some parts of our own country. The colony is subject to occasional epidemics, and from the best information I could procure, it is thought that the mortality is about one in forty-three; this may be called a very small proportion, when one takes into consideration the great quantity of ardent spirits that is consumed.

The general appearance of the vegetation of New South Wales presents many peculiarities. The character of its productions is totally distinct from those of the other portions of the globe. The gum trees, Norfolk pines, and those of Moreton Bay, attract attention from their scattered appearance, and peculiar foliage. All these have a dark and sombre hue. A remark made by one of our gentlemen is characteristic of the former, "that they were ghosts of trees." The leaves being set edge-wise causes this appearance, and in consequence give little or no shade. This peculiar position of the leaf is more conspicuous in the eucalypti than in other genera, for in them the leaves are all pendant, while the leaves in the other genera are usually upright, rigid, and somewhat as may be seen in the acacias and other tribes. It was observed that both surfaces of the leaves were much alike, having as it were, two upper surfaces. Whether any physiological purpose has been as-

signed for such an arrangement I have not been informed.

Among the most singular of the productions of Australia are the wooden pears, as they are called. These have a close external resemblance to the fruit whose name they bear, but are ligneous within. Another of the fruits is a cherry, whose stone is external, and would be similar to our fruit of that name were the kernel in its proper place. The pit adheres firmly to the pulp, which is of the size of a pistol-bullet, but the fruit shrinks when ripe to that of a buck-shot. The pear grows on a low shrub, the cherry on a large bush.

I have before remarked how different the "forest," so called in New South Wales, is from what is understood by the term elsewhere. The want of close growth is not the only remarkable appearance, but the absence of all decayed foliage is also extraordinary. The ground is clear of any fallen leaves, and every thing betokens that perennial verdure is here the order of things. These two features combined, give the forests of Australia the air of a neatly-kept park. Annual plants, (if so they can be called,) abound in the forest, requiring, it is said, more than a single year to bring their seeds to maturity. There were instances we were told of crops of grain remaining three years in the ground. A few plants found in other parts of the world, are, it is well known, only brought into existence after a lapse of years, and others give repeated crops during the same year. That these types, so rare in other countries, should be abundant in Australia, is not remarkable, when it is considered that they are but instances of an almost complete diversity between the natural history of this country and that of other regions.

The remark, that the leaves of the trees are wood, and their wood, iron, is not inappropriate to most of the plants of this country. It is not, however, to be inferred that all the plants are different from those of other countries; so far from this being the case, a considerable admixture of ordinary forms was met with. Among these were a great variety of grasses, some of which were before considered to be peculiar to North America. Many other forms decidedly North American were also met with; a circumstance which, from the difference of geographical position, distance, and climate, was not to be expected.

All seem to have been struck with the apparent monotony of the scenery, foliage, and flora, although in reality the latter presents great variety. The general sentiment was, that they were fatigued by it, which is not a little surprising, as the Australian flora rivals in number of species that of Brazil. This feeling may be accounted for by the overpowering impression that is made by the gum trees, whose foliage is of a dark sombre green. There is also something in the general absence of underbrush; and the trees are so distant from one another that there is no need of roads, so that a carriage may drive any where.

The trees are in general tall in proportion to their diameter, with an umbrella top, and have the appearance of being thinly clad in foliage. No woody vines are to be seen, nor any parasitic plants. In many places a stunted growth of detached shrubs, called in the colony "scrub," exists, which might be termed one of their "forests" in a dwarf shape.

In the Illawarra district a totally distinct state of things exists. Here is to be found all the luxuriance of the tropics—lofty palms, among them the *corypha australis*, with tree-ferns of two or more varieties, different species of *figus*, a scandent piper, and very many vines. The forest of this district is thick, and alive with animal life.

This district is about fifty miles long, and forms a semicircular area about thirty miles in its greatest width. The peculiarity of the situation of this district would tend to show what would have been the probable state of New Holland, or rather its eastern side, if the mountains were sufficiently high to intercept the moisture of the ocean, and prevent the access to it of the dry hot winds from the interior. Illawarra may be termed the granary of New South Wales; here the crops seldom, if ever, fail, and are very abundant.

The soil of Sydney consists of black mould, mixed with a clean white sand. The quantity of sand is such, as in the dry seasons to affect the vegetation. This sand, I understood, is now exported to England at a great profit, being found a valuable article in the manufacture of plate glass. This soil, however, is made to yield a plentiful supply of fruits and vegetables; and the display exhibited at the horticultural exhibition was highly creditable, not only for the perfection to which the productions had been brought, but for their great variety. The exhibition was held in the large market-house in George Street, which was tastefully decorated for the occasion with branches and festoons of flowers. In front of the door was an arch formed of beautiful flowers, with the motto, "Advance Australia!" surmounted by a crown, and the letters V. R. in yellow flowers. Behind this the band was stationed, which, on our entrance, struck up Yankee Doodle. Tickets were sent to the consul for those belonging to the squadron. There were a great many South American plants in pots. A premium was received for *tropaeolum pentaphyllum*, *maurandya barchayana*, and for two species of *calceolaria*. There were likewise *amaryllis belladonna* and *umbellata*, *bouvardia triphylla*, *cobaea scandens*, and several *passifloras*, and a variety of *hyacinths*, *dahlias*, *tuberoses*, &c., all fine.

The grapes exhibited were beautiful, and some of them in very large clusters. Nectarines, peaches, apples, pears, small oranges, shaddocks, pineapples, chestnuts, and walnuts, were also in abundance.

After viewing the fruit we examined the vegetables, which consisted of potatoes, carrots, turnips, very large pumpkins, cucumbers, cabbages of different kinds and very fine, particularly the curled Savoy and early York, tomatoes, celery, squashes, vegetable marrow, beets, capsicums, and beans.

After the vegetables came specimens of native wines, and a silver cup was given as a premium for the best. The white wine resembled hock in taste; the red, claret. The climate is thought to be favourable to the production of the grape. The first wine made in the colony was by Mr. Blaxland, on his estate at Newington.

The grains grown in the colony are, wheat, rye, barley, Indian corn, and oats. The wheat yields from six to twenty-five bushels to the acre, and some low ground as high as thirty-five bushels. Its weight per bushel is sixty-two pounds. The crops

of this grain are subject to great fluctuations, and the most promising appearance may in a single day be entirely destroyed.

Tobacco has been cultivated, and it is thought will succeed; but the frequent frosts render it a very uncertain crop.

Cotton has been attempted, but with little success. The value of pasturage, and its profitable yield in sheep-walks, will long be a bar to the extensive cultivation of any plants that require much labour in their production. Our horticulturist remarks, that cherries do not succeed well, being affected by the dry cutting winds which occur in the blossoming season.

The orange, citron, and lemon trees present a scraggy and yellow appearance, and produce small and insipid fruit, in comparison with that of the tropics. Peaches thrive, and grow in large quantities, and of high flavour. Every farmer has his peach orchard; and the fruit is so plentiful that they fatten their pigs on them.

The natives of Australia are fast disappearing. The entire aboriginal population has been estimated as high as two hundred thousand; this estimate is founded on the supposition that the unexplored regions of the country do not differ materially from that part of it which is known, which cannot well be the case. Other estimates, and probably much nearer the truth, are given at from sixty to seventy-five thousand.

The ravages of intoxication and disease, combined with their occasional warfare, will readily account for the rapid disappearance of the native population; and but a few more years will suffice for the now scanty population to become extinct. In 1835, the surveyor-general, Mitchell, estimated that in about one-seventh of the whole colony, which he had examined, the natives did not exceed six thousand in number; they are in many parts most wretched-looking beings, and incorrigible beggars: the moment they see a stranger, he is fairly tormented to give something; a shilling or a sixpence contents many, and when laid out for rum, or bread, is shared by all present.

The introduction of European arts has caused but little improvement, while the vices which accompany them have been the bane of the native population, which has thus acquired a fondness for ardent spirits and tobacco. The natives usually lead a wandering, vagabond life, hanging about the houses of the settlers where they are well treated, and doing little jobs for a slight recompense in the above articles. Their habitations are mere temporary shelters, formed of boughs and bark piled up against the stump of a fallen tree, rather to shield them from the wind than for a regular habitation; the reason for this may be, that owing to superstitious scruples they never encamp in one spot three nights in succession. At Illawarra, their huts were made by setting two forked sticks upright, on which another was laid horizontally; on the latter, one end of pieces of bark, taken from the nearest gum tree, is laid, while the other end rests upon the ground. A fire is built on the open side, which not only warms them, but keeps off the myriads of mosquitoes and other insects. As many as can enter such a hut, take shelter in it, lying upon the soft bark of the ti tree.

The natives of Australia differ from any other race of men, in features, complexion, habits, and

language. Their colour and features assimilate them to the African type; their long, black, silky hair has a resemblance to the Malays; in their language they approximate more nearly to our American Indians; while there is much in their physical traits, manners, and customs, to which no analogy can be traced in any other people.

They are difficult to manage, taking offence easily when they are ill-treated; and if any one attempts to control, thwart, or restrain their wandering habits, they at once resort to the woods, and resume their primitive mode of life, subsisting upon fish, grubs, berries, and occasionally enjoying a feast of kangaroo or opossum-flesh. They eat the larvæ of all kinds of insects with great gusto. Those who reside upon the coast, fish with gigs or spears, which are usually three-pronged; they have no fish-hooks of their own manufacture.

When they feel that they have been injured by a white settler, they gratify their revenge by spearing his cattle; and it is said upon good authority, that not a few of the whites, even of the better class, will, when they can do so with impunity, retaliate in the blood of these wretched natives; and it is to be regretted that they are not very scrupulous in distinguishing the guilty from the innocent.

The natives of New South Wales are a proud, high-tempered race: each man is independent of his neighbour, owning no superior, and exacting no deference; they have not in their language any word signifying a chief or superior, nor to command or serve. Each individual is the source of his own comforts, and the artificer of his own household implements and weapons; and but for the love of companionship, he might live with his family apart and isolated from the rest, without sacrificing any advantages whatever. They have an air of haughtiness and insolence arising from this independence, and nothing will induce them to acknowledge any human being as their superior, or to show any marks of respect. In illustration of this, Mr. Watson the missionary is the only white man to whose name they prefix "Mr.," and this he thinks is chiefly owing to the habit acquired when children under his authority. All others, of whatever rank, they address by their Christian or surname. This does not proceed from ignorance on their part, as they are known to understand the distinctions of rank among the whites, and are continually witnessing the subservience and respect exacted among them. They appear to have a consciousness of independence, which causes them on all occasions to treat even the highest with equality. On being asked to work, they usually reply, "White fellow work, not black fellow;" and on entering a room they never remain standing, but immediately seat themselves.

They have not, properly speaking, any distribution into tribes. In their conflicts, those speaking the same language, and who have fought side by side, are frequently drawn up in battle-array against each other, and a short time after may be again seen acting together. Their conflicts, for they do not deserve the name of wars, are conducted after the following manner. The quarrel or misunderstanding generally arises from

some trivial affair; when the aggrieved party assembles his neighbours to consult them relative to the course to be pursued. The general opinion having been declared, a messenger is sent to announce their intention to commence hostilities to the opposite party, and to fix a day for the combat. The latter immediately assemble their friends, and make preparations for the approaching contest. The two parties on the day assigned meet, accompanied by the women and children. The first onset is made by the oldest women (hags they might be termed) vituperating the opposite side. Then a warrior advances, and several throws of spears take place. These are parried with much dexterity, for all the natives possess great art and skill in avoiding missiles with their shields. This exchange of missiles continues for some time, and not unfrequently ends without any fatal result. When one of either party is killed, a separation takes place, succeeded by another course of reerimination, after which explanations are made, the affair terminates, and hostility is at an end; the two parties meet amicably, bury the dead, and join in the corrobory dance.

These dances are not only the usual close of their combats, but are frequent in time of peace. They appear almost necessary to stir up their blood; and under the excitement they produce, the whole nature of the people seems to be changed. To a spectator the effect of one of these exhibitions almost equals that of a tragic melodrame.

A suitable place for the performance is selected in the neighbourhood of their huts. Here a fire is built by the women and boys, while such of the men as are to take a share in the exhibition, usually about twenty in number, disappear to arrange their persons. When these preparations are completed, and the fire burns brightly, the performers are seen advancing in the guise of as many skeletons. This effect is produced by means of pipe-clay, with which they paint broad white lines on their arms and legs, and on the head, while others of less breadth are drawn across the body, to correspond to the ribs. The music consists in beating time on their shields, and singing, and to it the movements of the dancers conform. It must not be supposed that this exhibition is a dance in our sense of the word, nor is it like any thing that we saw in the South Sea Islands. It consists of violent and odd movements of the arms, legs, and body, contortions and violent muscular actions, amounting almost to frenzy. The performers appear more like a child's pasteboard supple-Jack than any thing human in their movements.

This action continues for a time, and then the skeletons, for so I may term them, for they truly resemble them, suddenly seem to vanish and reappear. The disappearance is effected by merely turning round, for the figures are painted only in front, and their dusky forms are lost by mingling with the dark back-ground. The trees illuminated by the fire, are brought out with some of the figures in bold relief, while others were indistinct and ghost-like. All concurred to give an air of wildness to the strange scene. As the dance proceeds, the excitement increases, and those who a short time before appeared only half alive, become

full of animation, and finally were obliged to stop from exhaustion.

Their weapons are the spear, club, or nulla-nulla, boomereng, dundumel, and the bundi. Their spears are about ten feet long, and very slender, made of cane or wood tapering to a point, which is barbed. They are light, and one would scarcely be inclined to believe that they could be darted with any force; nor could they without the aid of the wammera, a straight flat stick, three feet in length, terminating in a socket of bone or hide, into which the end of the spear is fixed. The wammera is grasped in the right hand by three fingers, the spear lying between the fore-finger and thumb. Previous to throwing it, a tremulous or vibratory motion is given to it, which is supposed to add to the accuracy of the aim; in projecting the spear, the wammera is retained in the hand, and the use of this simple contrivance adds greatly to the projectile force given to the spear. They are well-practised in the use of these weapons.

The nulla-nulla, or uta, is from thirty to thirty-six inches in length, the handle being of a size to be conveniently grasped.

The dundumel is a weapon used by the natives of the interior; it has a curved flat handle thirty inches in length, and terminates in a projection not unlike a hatchet; it is thrown from the hand before coming to close quarters, and usually at a very short distance.

But the most extraordinary weapon is the boomereng. This is a flat stick, three feet long and two inches wide by three-quarters of an inch thick, curved or crooked in the centre, forming an obtuse angle. At first sight one would conclude it was a wooden sword, very rudely and clumsily made; indeed one of the early navigators took it for such. It is an implement used both for war and in the chase. In the hands of a native it is a missile efficient for both, and is made to describe some most extraordinary curves and movements.

As a defence, they use a shield made of the thick bark of the gum tree; this they call hielemara. It is peculiar in shape, and on the coast is three feet long by six or eight inches wide, with a handle in the centre; it is made rounding. Those in the interior are only a three-cornered piece of wood, with a hole on each side, through which the hand is thrust. The size of the latter is smaller, being only two feet long and three or four inches broad. It would seem almost impossible that so small a shield should be sufficient to guard the body of a man; and nothing but their quickness of eye and hand could make it of any value as a protection against the spear or club.

The mode in which the natives climb trees was considered extraordinary by those who witnessed it, although they had been accustomed to the feats of the Polynesians in the ascent of the cocoa-nut trees. The Australians mount a tree four or five feet in diameter, both with rapidity and safety. As they climb they cut notches above them, with a stone or metal hatchet, large enough to admit two of their toes, which are inserted in them, and support their weight until other holes are cut.

The social system and intercourse of the Australians is regulated by custom alone. As no system of government exists, or any acknowledgment of power to enact laws, they are solely guided by old usage, and can give no account whatever

of its origin. The universal reprobation of their associates, which follows a breach of ancient customs, has a strong tendency to preserve a strict observance of them. Many of these customs struck us as remarkable; those that have not been actually seen by the officers of the expedition, have been described by persons entitled to the fullest credit.

The custom (to use the language of the settlers) "of making young men" is singular. When the boys reach the age of fourteen, or that of puberty, the elders of the tribe prepare to initiate them into the privileges of manhood. A night or two previous, a dismal cry is heard in the woods, which the boys are told is the Bùlù calling for them. Thereupon all the men of the tribe set off for some secluded spot, previously fixed upon, taking with them the boys or youths to be initiated. No white man is allowed to be present, and the precise nature of the ceremony is therefore unknown; but it is certain that the ceremonies are designed to try their courage, fortitude, and the expertness of the boys in reference to their future employments in the chase and in war. There is probably some difference in these ceremonies among the different tribes. The Wellington station, or those of the interior, for instance, never knock out a front tooth, which is always done on the coast.

From the time the youths are initiated, they are required to yield implicit obedience to their elders. This is the only control that seems to prevail, and is very requisite to preserve order and harmony in their social intercourse, as well as to supply the place of distinctions of rank among them.

The youths are likewise restricted to articles of diet, not being allowed to eat eggs, fish, or any of the finer kinds of opossum or kangaroo. Their fare is consequently of a very poor description, but as they grow older these restrictions are removed, although at what age we have not learnt; but after having passed the middle age, they are entirely at liberty to partake of all. The purpose of this is thought to be not only to accustom them to a simple and hardy way of living, but also that they should provide for the aged, and not be allowed to appropriate all to themselves. Selfishness is therefore no part of their character, and all observers are struck with their custom of dividing any thing they may receive among each other, a disinterestedness that is seldom seen among civilized nations.

To protect the morals of the youths, they are forbidden from the time of their initiation until their marriage to speak to or even to approach a female. They must encamp at a distance from them, and if, perchance, one is seen in the pathway, they are obliged to make a detour in order to avoid her. Mr. Watson stated he had been often put to great inconvenience in travelling through the woods with a young native for his guide, as he could never be induced to approach an encampment where there were any women.

The ceremony of marriage is peculiar. In most cases the parties are betrothed at an early age, and as soon as they arrive at the proper age, the young man claims his 'gin' or wife.

The women are considered as an article of property, and are sold or given away by the parents or relatives without the least regard to their own wishes. As far as our observation went, the women

appear to take little care of their children. Polygamy exists, and they will frequently give one of their wives to a friend who may be in want of one; but notwithstanding this laxity they are extremely jealous, and are very prompt to resent any freedom taken with their wives. Their quarrels for the most part are occasioned by the fair sex, and being the cause, they usually are the greatest sufferers; for the waddy is applied to their heads in a most unmerciful style, and few old women are to be seen who do not bear unquestionable marks of the hard usage they have received. The husband who suspects another of seducing his wife, either kills one or both. The affair is taken up by the tribe, if the party belongs to another, who inflict punishment on him in the following manner.

The guilty party is furnished with a shield, and made to stand at a suitable distance, and the whole tribe cast their spears at him; his expertness and activity often enable him to escape any serious injury, but instances do occur in which the party is killed. Such punishments are inflicted with great formality, upon an appointed day, and the whole tribe assemble to witness it. The person most injured has the first throw, and it depends upon the feelings of the tribe respecting the offence committed, whether they endeavour to do injury to the culprit or not; and thus it may be supposed that there is some judgment evinced in this mode of punishment.

The following account of the burial of their dead was received from the missionary who was an eyewitness to it. He was called out one evening to see a native, who they said was dying. On repairing to the camp, he was too late, for the man was already dead, and notwithstanding the short space of time that had elapsed, the corpse was already wrapped up for burial. The legs had been bent at the knees and hips, and tied to the body, and the head bent downwards towards the legs. In this position the corpse was enveloped in a blanket, and bound round with many ligatures, so as to form a shapeless lump. There were about fifty natives present, seated within a small space in front. The women were raising dismal lamentations and cutting themselves with sharp sticks; while the men were engaged in an earnest consultation as to the place which should be fixed upon for the burial. At length it was determined to be on the banks of the Macquarie, at no great distance from the mission station. On the following day the missionary proceeded to the place, and found that the natives had already cleared the grass from a space about twenty feet in diameter; in the centre of this the grave was marked out, of an oval shape, six feet long by three feet wide. After digging to the depth of about a foot, they left a ledge all around the grave of a few inches in width: the excavation, thus diminished in size, was continued to the depth of five feet, the sides not being exactly perpendicular, but sloping slightly inwards. At the bottom of the grave was laid a bed of leaves, covered with an opossum-skin cloak, and having a stuffed bag of kangaroo-skin for a pillow; on this couch the body was laid, and the implements of hunting and war which the deceased had used during his lifetime were laid beside him. Leaves and branches of bushes were strewn over him, until the grave was filled up to the ledge or shelf above mentioned. Across the grave were laid

strong stakes, with the ends resting on this shelf, and on these a layer of stones, which filled the hole to the level of the soil. The excavated earth was then put over the whole, forming a conical heap eight or nine feet high. The trees on each side were marked with irregular incisions, but whether intended as symbols, or merely to identify the place of sepulture, was not understood. All the time this was going on fires were kept burning around the place, to drive away evil spirits, and the women and children uttered loud lamentations, inflicting at the same time wounds upon themselves. When the grave was completed, all the women and children were ordered away, and the missionary, perceiving that it was expected that he would do the same, retired also. His presumption was that they intended to give utterance to their grief, and that they were ashamed to do it in his presence, or before the women and children.

The day after the burial the natives visited every spot in which they recollected to have seen the deceased, and fumigated it, for the purpose of driving away the evil spirits. They even went into the missionaries' houses, greatly to the annoyance of the ladies.

Their style of mourning consists in bedaubing themselves with pipe-clay; and a more hideous object than an old woman thus tricked out can hardly be conceived. The body and limbs are streaked with it, and the face completely covered as with a mask, in which holes are left for the eyes, nostrils, and mouth. The mask is gradually removed, until the last that is seen of it is a small patch on the top of the head.

They have some idea of a future state, although some assert that the whole man dies, and that nothing is left of him; while others are of opinion that his spirit yet lives, either as a wandering ghost or in a state of metamorphosis, animating a bird or other creature of a lower order than man.

During our stay at Sydney, a convict-ship arrived; and being desirous of obtaining a view of her accommodations, and the mode of treating the convicts, I visited her. This vessel was prepared expressly for the purpose. Between decks, a strong grated barricade, well spiked with iron, is built across the ship at the steerage bulkhead. This affords the officers a free view of all that is going on among the prisoners.

Bunks for sleeping are placed on each side all the way to the bow, resembling those in a guard-room. Each of these will accommodate five persons. There is no outlet but through a door in the steerage bulkhead, and this is always guarded by a sentry. Light and air are admitted through the hatchways, which are well and strongly grated. The guard is under the command of a sergeant, and is accommodated in the steerage, the whole being under the orders of a surgeon, whose duty it is to superintend and regulate every thing that relates to the prisoners, inspect the ship daily, and administer punishment, even unto death if necessary. The surgeon also has control over the master of the vessel and his regulations. The master and mates, on receiving a certificate from the surgeon, are allowed a small sum for every convict landed, in addition to their pay.

The criminals have prison fare, and are supplied with wooden-ware for their eating utensils, which are kept in a very nice order. The quarter-deck

is barricadoed near the main-mast, abaft of which all the arms and accoutrements of the guard and vessel are kept. The master and officers are usually lodged in the poop-cabin. The prisoners are habituated to the discipline of the ship, on board the hulks, before leaving England. The usual, and most effectual, punishment for misbehaviour is to place the culprit in a narrow box on deck, in which he is compelled to stand erect. This punishment is said to be effectual in reducing the most refractory male convicts to order, but it was not found so efficacious in the female convict-ship; for, when put in the box, they would bawl so loudly, and use their tongues so freely, that it was found necessary to increase the punishment by placing a cistern of water on the top of the box. This was turned over upon those who persist in using their tongues, and acted on the occupant as a shower-bath, the cooling effect of which was always and quickly efficacious in quieting them. I was informed that more than two such showers were never required to subdue the most turbulent.

I was struck with the ruddy, healthy, and athletic looks of the young convicts that were arriving, and from their deportment and countenances I should hardly have been inclined to believe that they had been the perpetrators of heinous crimes.

I am not at all surprised that many of the settlers of the colony should be opposed to the change in the assignment system; for when such a fine body of men is seen, the reason is easily understood, as the possession of such strong and hale persons to all intents and purposes as slaves, and at the expense of their maintenance alone, must be very lucrative to those requiring labourers. I am, on the other hand, at a loss to conceive how the assignment system can be looked upon in any other light than as a great evil, which must be abolished if it be designed to make the inhabitants of New South Wales a moral community, and to reform the convicts. It acts most unequally on the parties, and is a barrier to the reformation that the punishment of transportation is intended to effect.

The convicts on arriving are sent to the barracks at Sydney. The government selects from them such mechanics as are required for the public service, and then the numerous applicants for labourers are supplied. Those assigned to private employers are sent to the interior under the charge of a constable or overseer.

They build their own huts, and the climate being very fine, require but little shelter. The hours of labour are from six to six, and the quantity of labour exacted from them is about two-thirds of what would be required in England. They are treated in all respects as if they were free, and no restraint is imposed, except that they cannot leave their masters, who, when they have no further use for them, return them to the government to be reassigned.

When on ticket of leave, they may reside in any place they choose to select.

The convict's time of probation depends upon the original term of his sentence; but on a commission of crime within the colony, it begins from his last conviction. For refractory conduct, they may be taken to the nearest magistrate, who orders

punishment on the oath of the master. The magistrate has also power to send them to the nearest chain-gang employed on public works. Here they are worked in irons, and kept on scanty food for a limited period, after which they may be returned to their masters. If badly treated, the convict may have the affair investigated, but redress comes slowly.

One of the great evils of the system is, that many of the convicts on arriving are assigned to persons in Sydney and other towns, the consequence of which is that they are exposed to the contaminations and temptations that are likely to beset them in those thickly-peopled places, and this too only a few months after their conviction in the mother country. This influence removes all hopes of reform, and they are usually soon found among the criminals of New South Wales.

All persons who are landholders may receive convicts as assigned servants, in the proportion of one to every three hundred and twenty acres, but no one proprietor can have in his employ more than seventy-five convicts.

Written application for labourers is made to the Board of Assignment, and the applicants must bind themselves to keep the assigned convict for at least one month, and to furnish him with food and clothing agreeably to the government regulations, which are as follows, viz.

The weekly rations consists of twelve pounds of wheat, or nine pounds of seconds flour; or, in lieu thereof, at the discretion of the master, three pounds of maize meal, and nine pounds of wheat, or seven pounds of seconds flour; with seven pounds of beef or mutton, and four pounds of corned pork, two ounces of salt, and two ounces of soap.

The clothing for a year is as follows, viz. two frocks or jackets, three shirts, of strong linen or cotton, two pairs of trousers, three pairs of shoes, of stout durable leather, one hat or cap, and the use of a good blanket and mattress belonging to the master.

Custom, however, has extended the above allowances, and the quantity of luxuries added in tobacco, sugar, tea, and grog, makes the amount nearly double. These additions have become absolutely necessary in order to procure work from the convicts, and the free supply of them is the only way in which they can be made to work in the harvest season. I was informed that a settler considered it all-important to have a large stock of these luxuries on hand at the season of pressure; for although the assigned servants do not actually refuse to work, they do so little, that, in order to save his crop, the master must yield them the extra indulgences.

Another evil attendant on the assignment system is the difference in the treatment they receive from those to whom they are assigned. On the arrival of a convict-ship, a large number of persons who have made applications to the Board, are in waiting; they of course know nothing of the character of the convicts, and, as I learned from a good source, no record is kept, or sent with the convicts themselves. The Board is entirely ignorant of their character or crimes, and thus can exercise no discrimination in assigning the convict to the hands of a good or of a hard master. The greatest villains may, therefore, fall into kind hands, while one who

is comparatively innocent may suffer much more than he deserves.

The punishment of transportation must continue very unequal until a classification be resorted to. Many convicts, by bad treatment, are confirmed in their vices.

For any misbehaviour, they are, as has been seen, subject to severe castigation upon their master's making oath before a magistrate. This not unfrequently drives the culprit or convict to further crime, and in revenge for these wrongs, he either neglects his master's interest, or has been known to set fire to his harvest when gathered.

The present system appears fitted to entail evil and misery on the colony, and there are few disinterested men who do not view it as calculated to prevent any moral improvement. Murders, robberies, and frauds are brought about by it, for which extreme punishments are of such frequent occurrence that it is a matter of astonishment that a stranger should remark that an execution had taken place. The day before our arrival five criminals had been hung, and more were to suffer in a few days.

These executions take place without causing any unusual excitement. There is little doubt that the convict population contains among its members many of the most abandoned wretches, and I am also aware that the governor and council are making every exertion to put a stop to the immorality and vice which so generally prevail; yet I am satisfied that the convicts who are assigned are, in some cases, goaded on to crime by the treatment they receive from their masters, who hold them as slaves, and degrade them to the level of the beast with whom they are forced to labour.

The season of our visit to Sydney was that of their summer (December), and it was somewhat difficult for us to realize the luxuriance of vegetation about us. We could hardly become familiar with windows and doors entirely open at Christmas time. Although it was properly the out-of-town season, we found much gaiety existing, and we have great pleasure in acknowledging the attentions and civilities extended to us during the whole of our stay.

The facilities for outfits here are such as are not to be found elsewhere in the Pacific. The mechanics are good, but as artisans are scarce their wages are exorbitant, and the employer is, for the most part, compelled to put up with their demands. From our experience, we inferred they are not to be depended on, and require to be well watched to obtain the requisite quantity of labour from them. Their rations of grog were always a stipulation made by them, and had to be complied with.

During our stay here, our men behaved well. They all received leave in their turn to visit the shore, and I felt gratified in not having a single case reported to me of bad behaviour on shore.

As our departure drew near, one and all of us felt and expressed regret at leaving such kind friends. In very many places and families, we had found ourselves at home, and were always received

with that kindness that showed us we were welcome. The seasons, with many other things, may be reversed, yet the hospitality of old England is found here as warm and fresh as ever it was in the parent land. It would be impossible to mention all those to whom we feel indebted for various kindnesses and attentions, or even to cite those from whom the expedition received many accessions to its collections. Notwithstanding I have mentioned many things that have struck us as requiring great reform, yet the whole impression left on my mind is, that it is a glorious colony, which the mother country, and the whole Anglo-Saxon race, may well be proud of, and that it ought to claim much more attention than it apparently does from the home government.

After writing our farewell letters, we took our Christmas dinner with many of our friends, and on the morning of the 26th December, 1839, at six o'clock, we weighed our anchors and stood down the bay. The day was fine, the breeze light and contrary, and we did not get to sea till the afternoon. When we were about passing the heads, our worthy consul and some others of our countrymen took their leave, and by way of dispelling the gloom that was naturally felt at parting, and to show the good wishes entertained for their welfare, we gave them at parting several hearty cheers, and then bore away on our course.

It falling calm, the Vincennes and tender were obliged to anchor between the heads. The Peacock and Porpoise succeeded in getting outside, and when the tide made, we weighed and stood after them. On getting to sea, although every search had been previously made by the master-at-arms, I learned that there were two strangers on board, who had contrived to evade his watchfulness, and on beating to quarters, and mustering the crew, they were among the forthcoming. Their appearance was any thing but convict-like; but I felt after all the attentions heaped upon us, it was seemingly but an ungrateful return, to appear to have committed an infraction of their laws, and this after I had received intimation that an attempt would be made, through us, to effect desertion among the troops. From their appearance and carriage I thought they showed the drill of soldiers, and at once told them and the assembled crew, that they were mistaken if they expected to be harboured as such, and that on my return from the south, I should send them back to Sydney to be delivered over. I then entered them on the rolls for provisions only, until I ascertained whether they were entitled to receive compensation; and after telling the men they must look forward to a hard and dangerous cruise, and saying a few words relative to what was expected of them by the country and myself, I enjoined upon them the necessity of economy in their food and clothing, in aiding me in my endeavours to promote their health and comfort. We then piped down, and set about preparing the ship for the antarctic cruise, the events of which will be detailed in the following chapters.

CHAPTER XVII.

ANTARCTIC CRUISE.

PRELIMINARY REMARKS—DISPUTED CLAIMS OF PRIORITY OF DISCOVERY—PROCEEDINGS OF THE SQUADRON TO THE SECOND OF JANUARY—SEPARATION OF THE FLYING-FISH AND PEACOCK—FIRST ICEBERG SEEN—FALL IN WITH THE ICY BARRIER—PORPOISE LOST SIGHT OF—PROCEEDINGS OF THE PEACOCK FROM THE THIRD OF JANUARY—HER VISIT TO MACQUARIE'S ISLAND—FIRST ICEBERG SEEN BY HER—SHE FALLS IN WITH THE ICY BARRIER—PROCEEDINGS OF THE PORPOISE—SEA-ELEPHANTS SEEN AND TAKEN—LAND SEEN FROM ALL THE VESSELS—PROCEEDINGS OF THE VINCENNES FROM THE SIXTEENTH OF JANUARY—SHE ENTERS A DEEP BAY IN THE BARRIER—PEACOCK AND PORPOISE SEEN—PEACOCK SPOKEN—LAND DISTINCTLY SEEN FROM THE VINCENNES AND PEACOCK—FIGHT BETWEEN A WHALE AND 'KILLER'—PROCEEDINGS OF THE PEACOCK—SOUNDINGS OBTAINED BY HER—HER PERILOUS SITUATION AND PROVIDENTIAL ESCAPE—HER CRIPPLED CONDITION—CAPTAIN HUDSON RESOLVES TO RETURN—HIS ADMIRABLE CONDUCT, AND THAT OF HIS OFFICERS AND CREW.

THE subjects of which I am about to treat in the following chapters are exclusively nautical. I shall therefore adopt in treating them more of the form of a log-book, and follow the daily order of their occurrence with more strictness than I have hitherto considered necessary. This will be done in order to illustrate more fully the nature of the remote regions we traversed, and for the purpose of giving a more exact relation of the incidents of this part of our cruise,—incidents that I cannot but hope have made this part of our labours particularly interesting to all of our countrymen who possess a feeling of national pride.

The credit of these discoveries has been claimed on the part of one foreign nation, and their extent, nay, actual existence, called into question by another; both having rival expeditions abroad, one at the same time, the other the year succeeding.

Each of these nations, with what intent I shall not stop to inquire, has seemed disposed to rob us of the honour by underrating the importance of their own researches, and would restrict the antarctic land to the small parts they respectively saw. However willing I might be in a private capacity to avoid contesting their statements, and let truth make its own way, I feel it due to the honour of our flag to make a proper assertion of the priority of the claim of the American expedition, and of the greater extent of its discoveries and researches.

That land does exist within the antarctic circle is now confirmed by the united testimony of both French and English navigators. D'Urville, the celebrated French navigator, within a few days after land was seen by the three vessels of our squadron, reports that his boats landed on a small point of rocks, at the place (as I suppose) which appeared accessible to us in Piner's Bay, whence the Vincennes was driven by a violent gale; this he called Clarie Land, and testifies to his belief of the existence of a vast tract of land, where our view of it has left no doubt of its existence. Ross, on the other hand, penetrated to the latitude of 79° S. in the succeeding year, coasted for some distance along a lofty country connected with our antarctic continent, and establishes beyond all cavil the correctness of our assertion, that we have discovered, not a range of detached islands, but a vast antarctic continent. I took care to forward to Captain Ross a full account of the proceedings

of the squadron. Although I have never received any acknowledgment of their receipt from him personally, yet I have heard of their having reached his hands a few months prior to his antarctic cruise. Of this, however, I do not complain, and feel only the justifiable desire to maintain the truth in relation to a claim that is indisputable. The following narrative must, I feel satisfied, leave no doubt in any unprejudiced mind of the correctness of the assertion that we have discovered a vast continent; but I would ask in advance, who was there prior to 1840, either in this country or in Europe, that had the least idea that any large body of land existed to the south of New Holland? and who is there that now doubts the fact, whether he admits it to be a vast continent, or contends that it is only a collection of islands?

Examine all the maps and charts published up to that time, and upon them will any traces of such land be found? They will not, and for the very best of reasons—none was known or even suspected to exist. We ourselves anticipated no such discovery; the indications of it were received with doubt and hesitation; I myself did not venture to record in my private journal the certainty of land, until three days after those best acquainted with its appearance in these high latitudes were assured of the fact; and finally, to remove all possibility of doubt, and to prove conclusively that there was no deception in the case, views of the same land were taken from the vessels in three different positions, with the bearings of its peaks and promontories, by whose intersection their position is nearly as well established as the peaks of any of the islands we surveyed from the sea.

All doubt in relation to the reality of our discovery gradually wore away, and towards the close of the cruise of the Vincennes along the icy barrier, the mountains of the antarctic continent became familiar and of daily appearance, insomuch that the log-book, which is guardedly silent as to the time and date of its being first observed, now speaks throughout of "the land."

After leaving Sydney we had, until the 31st December, fine weather and favourable winds. We took advantage of these, and all sail was crowded on the vessels of the squadron. Under such circumstances, the usual order of sailing, in a line abreast, was easily maintained, and the communications between the vessels were frequent.

At the above date we had reached the latitude of 43° S.

During this favourable weather, all hands were employed in tightening the ports, in order to secure the interior of the vessels as much as possible from the cold and wet, which were to be apprehended in the region to which we were bound. For this purpose, after calking all the openings, the seams were covered with tarred canvass, over which strips of sheet-lead were nailed. The sailors exhibited great interest in these preparations, and studiously sought to make every thing snug; all useless articles were stowed away in the hold, for we were in truth full to overflowing.

Among other preparations, rough casings of boards were built around all the hatches, having doors furnished with weights and pulleys, in order to ensure that they should not be left open. Having thus provided for the exclusion of cold air, I contented myself with preparations for keeping the interior of the vessel at a temperature no higher than 50° . I deemed this preferable to a higher temperature, in order to prevent the injurious effects which might be produced by passing suddenly from below to the deck. I conceived it far more important to keep the air dry than warm, particularly as a lower temperature would have the effect of inducing the men to take exercise for the purpose of exciting their animal heat.

Aware that warm and dry clothing was an object of the first importance, inspections of the men's feet and dress were held morning and evening, in which the wearing of a suitable number of garments was insisted upon, as well as the greatest personal cleanliness. With the same views, the drying-stoves were particularly attended to; and that every part under deck might be effectually and quickly freed of moisture, additional stoves had been procured at Sydney. Thermometers were hung up in proper places, and frequently consulted, in order by following their indications to secure an equable temperature, and at the time to ascertain when the use of stoves might be dispensed with, in whole or in part. The latter was an important consideration, for we were under the necessity of husbanding our stock of fuel, by expending it only when absolutely necessary.

We also took advantage of the fine weather to bend all our best sails, and to shift our top-gallant masts.

The 1st January, 1840, was one of those days which are termed, both at sea and on shore, a weather-breeder. The sea was smooth and placid, but the sky was in places lowering, and had a wintry cast, to which we had long been strangers; the temperature shortly began to fall, the breeze to increase, and the weather to become misty. In a few hours we were sailing rapidly through the water, with a rising sea, and by midnight it was reported that the tender Flying-Fish was barely visible. I shortened sail, but it was difficult to stop our way; and on the morning of the 2nd of January, the fog was dense, and the Peacock and Porpoise only were in sight; we hove-to, and the Peacock and Porpoise were ordered to stand east and west, in order to intercept the tender, but they returned without success; we also fired guns in hopes of being heard. In the afternoon, I deemed it useless to wait any longer for her, and that I must take the chance of falling in with her at

Macquarie Island, our first appointed place of rendezvous,—a visit to which I had flattered myself might have been avoided, but which it became necessary now to make. We accordingly proceeded on our course for that island, with all sail set. This separation of the tender took place in the latitude of 48° S., and she was not again seen until our return. The officers and crew were not slow in assigning to the Flying-Fish a similar fate with her unfortunate mate, the Sea-Gull. Men-of-war's men are prone to prognosticate evil, and on this occasion they were not wanting in various surmises. Woeful accounts were soon afloat of the distress the schooner was in when last seen, and this in quite a moderate sea.

The barometer now began to assume a lower range, and the temperature to fall below 50° . On the 3rd, the fog continuing very thick, the Peacock got beyond hearing of our horns, bells, drums, and guns, and was parted with. This, however, I did not now regret so much, as it was of little consequence whether we sought one or two vessels at our rendezvous, although it might cause a longer detention there.

The morning of the 7th was misty, with squally weather. A heavy sea rising, and a strong gale setting in, we lost sight of the Porpoise for a few hours. Being unable to see beyond an eighth of a mile, it was thought imprudent to run, for fear of passing Macquarie Island, and we hove-to to await its moderating. It cleared at noon, and we obtained an observation, by which we found ourselves in latitude $54^{\circ} 20'$ S., and longitude $160^{\circ} 47'$ E. I found that we had been carried to the eastward upwards of twenty miles in less than eighteen hours; this, with the wind hauling to the south-west, brought us to leeward of the island, and the sea and wind increasing, I saw it was useless to attempt to reach it without great loss of time. I therefore bore off to the southward for our second rendezvous, Emerald Island, or its supposed locality.

During the 9th we passed the site of Emerald Isle, situate, as has been stated, in latitude $57^{\circ} 15'$ S., and longitude $162^{\circ} 30'$ E., but saw nothing of it, nor any indications of land, which I therefore infer does not exist in the locality where it is laid down. We again experienced the south-east current of twenty miles a day. Our variation had increased to twenty-two degrees easterly. Making our course with all sail set, the Porpoise in company, we passed to-day some pieces of kelp. The temperature continued at 38° . Numerous flocks of gray petrels around us.

The 10th we encountered the first iceberg, and the temperature of the water fell to 32° . We passed close to it, and found it a mile long, and one hundred and eighty feet in height. We had now reached the latitude of $61^{\circ} 8'$ S., and longitude $162^{\circ} 32'$ E. The current to-day set in the same direction as before, about half a mile per hour. The second iceberg seen was thirty miles, and the third about fifty-five miles south of the first. These ice-islands were apparently much worn by the sea into cavities, exhibiting fissures as though they were ready to be rent asunder, and showed an apparent stratification, much inclined to the horizon. The weather now became misty, and we had occasionally a little snow. I congratulated myself that we had but few on the sick-list, and all were in high spirits at the novelty of the cruise.

We continued to meet icebergs of different heights, some of which, though inclined to the horizon, had a plane upper surface.

11th. The fair wind from the north-west (accompanied with a light mist, rendering objects on the horizon indistinct) still enabled us to pursue our course southerly. Icebergs became so numerous as to compel us occasionally to change our course. They continued of the same character, with caverns worn in their perpendicular sides, and with flat tops, but the latter were now on a line with the horizon. Towards 6 p.m., we began to perceive smaller pieces of ice, some of which were not more than an eighth of a mile in length, floating as it were in small patches. As the icebergs increased in number, the sea became smoother, and there was no apparent motion. Between 8 and 9 p.m., a low point of ice was perceived ahead, and in a short time we passed within it. There was now a large bay before us. As the vessels moved rapidly, at 10½ p.m., we had reached its extreme limits, and found our further progress entirely stopped by a compact barrier of ice, enclosing large square icebergs. The barrier consisted of masses closely packed, and of every variety of shape and size. We hove-to until full daylight. The night was beautiful, and every thing seemed sunk in sleep, except the sound of the distant and low rustling of the ice, that now and then met the ear. We had now reached the latitude of 64° 11' S., longitude 164° 30' E., and found our variation twenty-two degrees easterly. One and all felt disappointed, for we had flattered ourselves that the way was open for further progress to the southward, and had imbibed the impression (from the extraordinary weather we had had at Sydney, and the reports of icebergs having been seen further to the northward than usual, by all the vessels arriving) that the season would be an open one. What surprised me most was a change in the colour of the water to an olive-green, and some faint appearances resembling distant land; but as it was twilight, and I did not believe the thing credible, I put no faith in these indications, although some of the officers were confident they were not occasioned by icebergs. The barometer stood at 29.200 in.; the temperature of the air 33°, water 32°. We lay-to until four o'clock. As it grew light, on the 12th, a fog set in so thick that we lost sight of the Porpoise, and could not hear any answer to our signals. I therefore determined to work along the barrier to the westward.

We were all day beating in a thick fog, with the barrier of ice close to us, and occasionally in tacking brought it under our bow; at other times we were almost in contact with icebergs. During the whole day we could not see at any time further than a quarter of a mile, and seldom more than the ship's length. The fog, or rather thick mist, was forming in ice on our rigging. From the novelty of our situation, and the excitement produced by it, we did not think of the danger.

I shall now leave the Vincennes and Porpoise pursuing their course to the westward with a head wind, and bring the Peacock up to the barrier.

Previously to parting company on the 3rd of January, the crew of that ship had also been engaged in building hurricane-houses, calking, and chintzing, to secure them from the wet and cold. After parting company, Captain Hudson immediately steered for the first rendezvous, Macquarie

Island, and was more fortunate than we were in reaching it, although the Peacock had experienced the same kind of weather that we had, and currents setting to the eastward.

On approaching the island, they discovered large patches of kelp, and saw numerous procellaria and albatrosses about the ship. On the 10th of January they made the island, and observed a reef of rocks extending three-quarters of a mile off its south end. Passing within a short distance of it, they did not observe any of the signals of the squadron flying as they had anticipated. They, notwithstanding, stood in, lowered a boat, and despatched several officers to put up the signal, make experiments, and collect specimens. The boat approached an indentation on the west side, too open to be called a bay, and found that the surf was running high, and beating with great violence against the rocks, which, together with the kelp, rendered it dangerous to attempt landing. They made for several other places which looked favourable at a distance, but on approaching them, they were found even less accessible. The boat then returned to the first place to make another attempt, which was attended with great difficulty. The boat's anchor was dropped, and she was backed in with great caution to the edge of the rollers; the surf was very high, and rolled in with a noise like thunder, breaking furiously upon the rocks, so as to make the boat fairly tremble, and threatening every moment to overwhelm her; once or twice she was prevented from getting broadside-to by hauling out towards her anchor. At length, after a dozen fruitless attempts, and awaiting a favourable opportunity, Mr. Eld and a quarter-master succeeded in getting ashore, but not without being immersed up to their breasts. It was found impossible to land any instruments; and the quarter-master was despatched to erect the necessary signals, while Mr. Eld proceeded to visit the penguin-rookery not far distant. On approaching the island, it had appeared to be covered with white spots: those excited conjecture; but after landing, the exhalations rendered it not long doubtful that it was birdlime.

Mr. Eld, in his journal, gives the following account of his visit: "Although I had heard so often of the great quantity of birds on the uninhabited islands, I was not prepared to see them in such myriads as here. The whole sides of the rugged hills were literally covered with them. Having passed a deep fissure in the rocks, I ascended a crag that led to what I thought was their principal roost, and at every step my astonishment increased. Such a din of squeaking, squalling, and gabbling, I never before heard or dreamed could be made by any of the feathered tribe. It was impossible to hear one's self speak. It appeared as if every one was vying with his neighbour to make the greatest possible noise. I soon found my presence particularly displeased them, for they snapped at me in all directions, catching hold of my trousers, shaking and pinching my flesh so violently as to make me flinch and stand upon the defensive. As we wanted a number of specimens, I commenced kicking them down the precipice, and knocked on the head those which had the temerity to attack me. After having collected a number, and a few eggs, I laid them aside, whilst I ascended higher on the hill. I had not left them

more than eighteen feet, before two albatrosses came down, and commenced picking at the dead birds I had just killed, but not being able to make any impression upon them, deliberately picked up two of the eggs with their beaks, and in spite of my efforts to prevent it, flew away with them. The eggs were about the size of a goose's; the original colour seemed to have been white, but they were so dirty that it was difficult to say with certainty. They were no doubt the eggs of the penguin, as I took them out of their nest, which was only a small place scratched in the earth, just big enough to hold one or two eggs, with little or no grass, sticks, or any thing else to form a nest of. I afterwards picked up a number of these eggs, and another was found of the size of a hen's egg, white, with a slight tinge of green. On mounting the hill still higher, which was very steep, and composed of volcanic rock, loose stones, and a little soil mixed with birdlime, I found that there were more of these birds than I anticipated. The nests were within two feet of each other, with one or two young ones in each; one of the old ones watching and sitting on the nest, whilst the young were trying ineffectually to nestle themselves under the small wings of the old ones. The appearance of the young was not unlike that of goslings, being covered with a dark thick down.

"These penguins are the eudyptes chrysocome; they are from sixteen to twenty inches in height, with white breast and nearly black back, the rest being of a dark dove-colour, with the exception of the head, which is adorned on each side with four or five yellow feathers, three or four inches long, looking like graceful plumes. The birds stand erect in rows, which gives them the appearance of Liliputian soldiers. The sight was novel and beautiful, and had it not been for the gabble,—enough to deafen me,—I could have stayed much longer. It was now time to return to the boat, when it occurred to me that live birds would be preferable to the dead; so throwing the latter down, I seized one old and a couple of young ones, and with three or four eggs in my cap, made the best of my way to the boat. It was now found impossible to hand them on board, and not willing to surrender my prize, a lead-line was thrown me from the boat, but did not come near enough, and in my attempts to get it, I was overtaken by a sea, and was thrown violently against the rocks among the kelp, and just made out to crawl on hands and knees beyond the reach of the returning sea, somewhat bruised, wet, and benumbed with the cold."

At this juncture the quarter-master returned with a large species of penguin over his shoulders, but without the crown of feathers on his head. He described a similar rookery, and also saw some green paroquets with a small red spot on the head, and an oblong slaty or purple spot at the root of the bill, and with straight beaks. Mr. Eld was too much exhausted to return with him to get specimens, and the hour being late, it was necessary to return to the boat, which had been waiting for some time for them. The quarter-master succeeded in getting his penguins to the boat, but Mr. Eld's began floundering about, and although their legs were tied, managed to get into the water, where they were at home, and were soon out of reach. The tying of the legs did not seem any impediment to their exertions in the water, and

thus several interesting specimens of natural history were lost, the trouble that it cost making them doubly valuable. With great difficulty Mr. Eld reached the boat; for, having again missed his foothold, he fell among the kelp, but by the timely aid of those on board he was rescued. After an hour's tug at their oars, they reached the ship in safety.

The south end of Macquarie Island lies in latitude 54° 44' S., and longitude 159° 49' E. The island is high and much broken; it is apparently covered with verdure, although a long tufted rank grass was the only plant seen by those who landed.

The highest peak on the island is from twelve to fifteen hundred feet high, and as far as our observations extended, it had neither tree nor shrub on it. At 6 P.M. the ship filled away, and at eight was abreast of the Bishop and Clerk. Macquarie Island affords no inducement for a visit, and as far as our examination went, has no suitable place for landing with a boat. The only thing I had to regret was not being able to make it a magnetic station.

On the 11th and 12th nothing particular occurred on board the Peacock. All sail was set, and running to the southward on the 13th, in latitude 61° 30' S., longitude 161° 5' E., the first ice-islands were seen. The dip was observed with Lloyd's and Dolland's needles, which made it 86° 53'.

There was no occasion on the night of the 13th to light the binnacle-lamps, as newspaper print could be read with ease at midnight. On the 14th, while still making much progress to the south, and passing occasionally icebergs and brash ice, the water appeared somewhat discoloured. Robinson's, Lloyd's, and Dolland's needles, gave, the same day, in the cabin, 86° 37' for the dip, and in the ward-room, 86° 46'. Albatrosses, Cape pigeons, and other birds about.

On the 15th, they passed many ice-islands. The weather was thick, and snow fell at intervals; the wind continued from the westward. Many whales were seen; albatrosses, petrels, and Cape pigeons were frequent about the ship. At 4 P.M. the mist raised a little, and to their surprise they saw a perfect barrier of ice, extending to the south-west, with several large icebergs enclosed within it. Shortly after they discovered a sail, which proved to be the Porpoise.

The Vincennes and Porpoise were left in our narrative near the icy barrier, separated by the fogs and mists that prevailed at times. The Porpoise, on the 13th, in latitude 65° 8' S., longitude 163° E., discovered several sea-elephants on the ice, and sent a boat to capture them, but without success. The current was tried, and found to set west one-fifth of a mile per hour. Some time afterwards, seeing some sea-elephants near the edge of the ice, a boat was sent, and succeeded in capturing a female. From the numerous sea-elephants, and the discoloration of the water and ice, they were strongly impressed with the idea of land being in the vicinity, but on sounding with one hundred fathoms, no bottom was found; Lieutenant-Commandant Ringgold felt convinced, from the above circumstances, and the report that penguins were heard, that land was near, and thought he could discern to the south-east something like distant mountains. A nearer approach was impossible, as they were then in actual contact with the icy barrier.

On the 14th, two sea-elephants were seen lying motionless on the ice. On being shot at, the animal would raise its head and look around for an instant, and then resume its former posture. Boats were lowered, when they were captured and brought on board: they proved to be the *phoca proboscidea*. Dr. Holmes examined their stomachs, and found nothing but well-digested food. Their dimensions were as follows:—

Total length	10 ft. 9 in.
Length of posterior flipper	1 " 9 "
Breadth	2 " 4 "
Circumference of largest part of body	6 " 3 "

This was a young female. The other was taken afterwards; he measured—

In length	8 ft. 6 in.
Greatest circumference behind anterior flipper	5 " 0 "
Length of flippers	1 " 5 "
Breadth	1 " 5 "

On the 15th the Peacock and Porpoise were in company: the specimens of sea-elephants were put on board the Peacock; and, after having had communication with each other, the vessels again separated, standing on opposite tracks.

On the 16th the three vessels were in longitude 157° 46' E., and all within a short distance of each another. The water was much discoloured, and many albatrosses, Cape pigeons, and petrels were seen about the ships. On board the Vincennes, we sounded with two hundred and thirty fathoms, and found no bottom; the water had the appearance of an olive-green colour, as if but forty and fifty fathoms deep. At the surface, its temperature was 32°, at the depth sounded, 31°. I should have tried for a deeper cast, but the line was seen to be stranded, when we were obliged to stop; we fortunately saved our apparatus, with Six's thermometers.

On this day (16th January) appearances believed at the time to be land were visible from all the three vessels, and the comparison of the three observations, when taken in connexion with the more positive proofs of its existence afterwards obtained, has left no doubt that the appearance was not deceptive. From this day, therefore, we date the discovery which is claimed for the squadron.

On board the Peacock, it appears that Passed Midshipmen Eld and Reynolds both saw the land from the masthead, and reported it to Captain Hudson: he was well satisfied on examination that the appearance was totally distinct from that of ice-islands, and a majority of the officers and men were also satisfied that if land could exist, that was it.

I mention particularly the names of these two gentlemen, because they have stated the same fact under oath, before the court-martial, after our return.

On board the Porpoise, Lieutenant-Commandant Ringgold states, that "he went aloft in the afternoon, the weather being clear and fine, the horizon good, and clouds lofty; that he saw over the field-ice an object, large, dark, and rounding, resembling a mountain in the distance; the icebergs were all light and brilliant, and in great contrast." He goes on to say, in his report, "I watched for an hour to see if the sun in his decline would change the colour of the object: it remained the same,

with a white cloud above, similar to that hovering over high land. At sunset the appearance remained the same. I took the bearings accurately, intending to examine it closely as soon as we got a breeze. I am thoroughly of opinion it is an island surrounded by immense fields of ice. The Peacock in sight to the southward and eastward over the ice; the sun set at a few minutes before ten; soon after, a light air from the southward, with a fog-bank arising, which quickly shut out the field-ice."

In Passed Midshipman Eld's journal, he asserts that he had been several times to the masthead during the day, to view the barrier; that it was not only a barrier of ice, but one of terra firma. Passed Midshipman Reynolds and himself exclaimed, with one accord, that it was land. Not trusting to the naked eye, they descended for spy-glasses, which confirmed, beyond a doubt, their first impressions. The mountains could be distinctly seen, over the field-ice and bergs, stretching to the south-west as far as any thing could be discerned. Two peaks, in particular, were very distinct (which I have named after those two officers), rising in a conical form; and others, the lower parts of which were quite as distinct, but whose summits were lost in light fleecy clouds. Few clouds were to be seen in any other direction, for the weather was remarkably clear. The sun shone brightly on ridge after ridge, whose sides were partially bare; these connected the eminences I have just spoken of, which must be from one to two thousand feet high. Mr. Eld further states, that on reporting the discovery to Captain Hudson, the latter replied that there was no doubt of it, and that he believed that most of the icebergs then in sight were aground. At this time they were close in with the barrier, and could approach no nearer. On this day, the Peacock got a cast of the deep-sea lead, with Six's thermometer attached, to the depth of eight hundred and fifty fathoms, only a short distance from the barrier: the temperature of the surface was 31°, and at the depth sounded, 31½°; current one-fourth of a mile, north-by-east.

The log-book of the Porpoise has also this notice in it: "From six to eight, calm and pleasant,—took in studding-sails; at seven set main-topgallant-studding-sail; discovered what we took to be an island, bearing south-by-east,—a great deal of field-ice in sight; noticed penguins around the brig. (Signed) J. H. North." Dr. Holmes, on the same evening, noted in his journal, a marked appearance of land.

On board the Vincennes there was on the same day much excitement among the crew. All eagerly watched the flight of birds, together with the whales and penguins, and spoke of the proximity of land, which, from the appearance of never-failing signs, could scarcely be doubted.

The field-ice is composed of a vast number of pieces, varying in size, and separated from one another, the long swell keeping the outer ones always in motion. The smallest pieces are about six feet in diameter, while the largest sometimes exceeded five or six hundred feet. Their depth below the surface varies still more, and some appear to be soft, whilst others were hard and compact. The depth of these does not probably in any case exceed twenty feet. Most of them, and particularly the larger ones, had a covering of about eighteen inches of snow. The whole at a distance appeared like a

vast level field, broken up as it were by the plough, and presenting shapeless angular masses of every possible figure, while here and there a table-topped iceberg was enclosed.

This night we were beating with frequent tacks, in order to gain as much southing as possible. Previous to its becoming broad daylight, the fog rendered every thing obscure, even at a short distance from the ship. I knew that we were in close proximity to icebergs and field-ice, but, from the report of the look-out at sunset, believed that there was an opening or large bay leading to the southward. The ship had rapid way on her, and was much tossed about, when in an instant all was perfectly still and quiet; the transition was so sudden that many were awakened by it from sound sleep, and all well knew, from the short experience we had had, that the cessation of the sound and motion usual at sea, was a proof that we had run within a line of ice,—an occurrence from which the feeling of great danger is inseparable. The watch was called by the officer of the deck, to be in readiness to execute such orders as might be necessary for the safety of the ship. Many of those from below were seen hurrying up the hatches, and those on deck straining their eyes to discover the barrier in time to avoid accident. The ship still moving rapidly along, some faint hope remained that the bay might prove a deep one, and enable me to satisfy my sanguine hopes and belief relative to the land.

The feeling is awful and the uncertainty most trying thus to enter within the icy barrier blindfolded as it were by an impenetrable fog, and the thought constantly recurring that both ship and crew were in imminent danger; yet I was satisfied that nothing could be gained but by pursuing this course. On we kept, until it was reported to me, by attentive listeners, that they heard the low and distant rustling of the ice: suddenly a dozen voices proclaimed the barrier to be in sight, just ahead. The ship, which a moment before seemed as if unpeopled, from the stillness of all on board, was instantly alive with the bustle of performing the evolutions necessary to bring her to the wind, which was unfavourable to a return on the same track by which we had entered. After a quarter of an hour, the ice was again made ahead, and the full danger of our situation was realized. The ship was certainly embayed; and although the extent of sea-room to which we were limited, was rendered invisible by the dark and murky weather, yet that we were closely circumscribed was evident from having made the ice so soon on either tack, and from the audible rustling around us. It required several hours to extricate the ship from this bay.

Few are able to estimate the feelings that such an occasion causes to a commander, who has the responsibility of the safety of ship and crew operating as a heavy weight upon his heart, and producing a feeling as if on the verge of some overwhelming calamity. All tends to satisfy him that nothing could guide him in safety through, or shield from destruction those who have been entrusted to his charge, but the hand of an all-wise Providence.

17th. In the morning we discovered a ship apparently within a mile of us, to which we made signal and fired a gun, but she was shortly after-

wards lost sight of. We also saw the brig to the eastward, close to the barrier of ice. In the afternoon we spoke the Peacock: she had not seen us in the morning; and I should be disposed to believe that the cause of her image appearing so close to us in the morning was produced by refraction above a low fog-bank; but the usual accompaniment of such phenomena, a difference of temperature below and aloft, did not exist.

I now desired Captain Hudson to make the best use of his time in exploring, as to attempt to keep company would only impede our progress, and without adding to our safety, might prevent the opportunity of examining the barrier for an opening. I was also satisfied that the separation would be a strong incentive to exertion, by exciting rivalry among the officers and crews of the different vessels. This day at noon we were in latitude $66^{\circ} 20' S.$, longitude $156^{\circ} 2' E.$ Many petrels, albatrosses, a few whales, and a seal, were seen from the ship; and the water was quite green.

18th. The weather this day was variable, with light westerly winds; the temperature of air and water 32° . Occasional squalls of snow and mist occurred, but it was at times clear. The water was still olive-green; and the other vessels occasionally in sight, beating to windward.

On the morning of the 19th, we found ourselves in a deep bay, and discovered the Peacock standing to the south-west. Until eight o'clock, A.M., we had a moderate breeze. The water was of a darker olive-green, and had a muddy appearance. Land was now certainly visible from the Vincennes, both to the south-south-east and south-west, in the former direction most distinctly. Both appeared high. It was between eight and nine in the morning when I was fully satisfied that it was certainly land, and my own opinion was confirmed by that of some of the oldest and most experienced seamen on board. The officer of the morning watch, Lieutenant Alden, sent twice, and called my attention to it. We were at this time in longitude $154^{\circ} 30' E.$, latitude $66^{\circ} 20' S.$; the day was fine, and at times quite clear, with light winds. After divine service, I still saw the outline of the land, unchanged in form, but not so distinct as in the morning. By noon, I found we were sagging on to the barrier; the boats were lowered in consequence, and the ship towed off. The report from aloft was, "A continued barrier of ice around the bay, and no opening to be seen, having the western point of it bearing to the northward of west of us." I stood to the westward to pass around it, fully assured that the Peacock would explore all the outlines of the bay.

The Peacock, at $3^h 30^m$, according to Captain Hudson's journal, having got into the drift-ice, with a barrier still ahead to the west, tacked to the south-east to work up for an immense mass, which had every appearance of land, and which was believed to be such by all on board. It was seen far beyond and towering above an ice-island that was from one hundred and fifty to two hundred feet in height. It bore from them about south-west, and had the appearance of being three thousand feet in height, forming a sort of amphitheatre, looking gray and dark, and divided into two distinct ridges or elevations throughout its entire extent, the whole being covered with snow. As there was no probability of getting nearer to

it in this quarter, they stood out of the bay, which was about twenty miles deep, to proceed to the westward, hoping to get an opportunity to approach the object more closely on the other side.

We had a beautiful and unusual sight presented to us this night: the sun and moon both appeared above the horizon at the same time, and each throwing its light abroad. The latter was nearly full. The former illuminated the icebergs and distant continent with his deep golden rays; while the latter, in the opposite horizon, tinged with silvery light the clouds in its immediate neighbourhood. There now being no doubt in any mind of the discovery of land, it gave an exciting interest to the cruise, that appeared to set aside all thought of fatigue, and to make every one willing to encounter any difficulty to effect a landing.

20th. This day, on board the Peacock they witnessed a sea-fight between a whale and one of its many enemies. The sea was quite smooth, and offered the best possible view of the whole combat. First, at a distance from the ship, a whale was seen floundering in a most extraordinary way, lashing the smooth sea into a perfect foam, and endeavouring apparently to extricate himself from some annoyance. As he approached the ship, the struggle continuing and becoming more violent, it was perceived that a fish, apparently about twenty feet long, held him by the jaw, his contortions, spouting, and throes all betokening the agony of the huge monster. The whale now threw himself at full length from the water with open mouth, his pursuer still hanging to the jaw, the blood issuing from the wound and dyeing the sea to a distance around; but all his flounderings were of no avail; his pertinacious enemy still maintained his hold, and was evidently getting the advantage of him. Much alarm seemed to be felt by the many other whales around. These "killers," as they are called, are of a brownish colour on the back, and white on the belly, with a long dorsal fin. Such was the turbulence with which they passed, that a good view could not be had of them to make out more nearly the description. These fish attack a whale in the same way as dogs bait a bull, and worry him to death. They are armed with strong sharp teeth, and generally seize the whale by the lower jaw. It is said that the only part of them they eat is the tongue. The whalers give some marvellous accounts of these killers and of their immense strength; among them, that they have been known to drag a whale away from several boats which were towing it to the ship.

There was a great quantity of animalculæ in the water, and some large squids (*medusæ*) and quantities of shrimp were frequently seen about the icebergs; these are no doubt the attractions which bring whales to frequent these seas.

The last two days we had very many beautiful snow-white petrels about. The character of the ice had now become entirely changed. The tabular-formed icebergs prevailed, and there was comparatively little field-ice. Some of the bergs were of magnificent dimensions, one-third of a mile in length, and from one hundred and fifty to two hundred feet in height, with sides perfectly smooth, as though they had been chiselled. Others again, exhibited lofty arches of many-coloured tints, leading into deep caverns, open to the swell of the

sea, which rushing in, produced loud and distant thunderings. The flight of birds passing in and out of these caverns, recalled the recollection of ruined abbeys, castles, and caves, while here and there a bold projecting bluff, crowned with pinnacles and turrets, resembled some Gothic keep. A little further onwards would be seen a vast fissure, as if some powerful force had rent in twain these mighty masses. Every noise on board, even our own voices, reverberated from the massive and pure white walls. These tabular bergs are like masses of beautiful alabaster: a verbal description of them can do little to convey the reality to the imagination of one who has not been among them. If an immense city of ruined alabaster palaces can be imagined, of every variety of shape and tint, and composed of huge piles of buildings grouped together, with long lanes or streets winding irregularly through them, some faint idea may be formed of the grandeur and beauty of the spectacle. The time and circumstances under which we were viewing them, threading our way through these vast bergs, we knew not to what end, left an impression upon me of these icy and desolate regions that can never be forgotten.

22nd. It was now, during fine weather, one continued day; but we had occasional snow-squalls that produced an obscurity that was tantalizing. The bergs were so vast and inaccessible, that there was no possibility of landing upon them.

The Peacock and Porpoise were in sight of each other this day. A large number of whales, albatrosses, petrels, penguins, &c., were seen around, and a flock of ducks was also reported as having been seen from the Vincennes, as well as several seals. The effect of sunrise, at a little after 2 A.M., on the 23rd, was glorious.

As the events which occurred on board the Peacock during the next few days are particularly interesting, I shall proceed to narrate them in detail, leaving the Vincennes and Porpoise to pursue their route along their dangerous and novel pathway.

The Peacock stood into the bay which the Vincennes had found closed the day before, and saw the same appearance of high land in the distance. The water was much discoloured, and of a dark dirty green. They hove-to, for the double purpose of getting a cast of the lead, and of lowering the boats to carry the instruments to a small iceberg, on which it was possible to land, for the purpose of making magnetic observations. A line of one thousand four hundred fathoms was prepared to sound, and to the lead was attached the cylinder with Six's thermometer. The wind being fresh, several leads at different distances were attached to the line. They were not aware that the lead-line had touched bottom, until they began to haul in, when it was found that the lead bent on at five hundred fathoms was filled with blue and slate-coloured mud. Attached to the lead also was a piece of stone, and a fresh bruise on it, as though the lead had struck heavily on rock.

The remainder of the line had evidently lain on the bottom, as the copper cylinder was covered with mud, and the water inside of it was quite muddy. They then beat up a short distance to windward, and again sounded, when, with the line hanging vertically, bottom was reached at three hundred and twenty fathoms; the matter

brought up was slate-coloured mud. The temperature of the water at the surface was 32° , and at the above depth $27\frac{1}{2}^{\circ}$, being a decrease of $4\frac{1}{2}^{\circ}$.

The boats now returned, and on approaching the ship the persons in them were much startled by hearing the crew cheer ship in consequence of finding soundings. This was a natural burst of joy, on obtaining this unquestionable proof that what they saw was indeed the land; a circumstance that, while it left no doubt, if any had existed, in the mind of any one on board the Peacock, that what they had previously seen was truly terra firma, furnished a proof that cannot be gainsaid, even by those disposed to dispute the evidence of sight, unsupported by so decisive a fact. Mr. Eld and Mr. Stuart, in the boats, succeeded in getting observations, and the mean dip by the needles was $86^{\circ} 16'$.

Mr. Eld's boat succeeded in taking a king-penguin of enormous size, viz. from tip of tail to the bill forty-five inches; across the flippers thirty-seven inches; and the circumference of the body thirty-three inches. He was taken after a truly sailor-like fashion, by knocking him down. The bird remained quite unmoved on their approach, or rather showed a disposition to come forward to greet them. A blow with the boat-hook, however, stunned him, and before his recovery he was well secured. He showed, on coming to himself, much resentment at the treatment he had received, not only by fighting, but by an inordinate noise. He was in due time preserved as a specimen, and now graces the collection at Washington. In his craw were found thirty-two pebbles, from the size of a pea to that of a hazel-nut.

24th. Bergs and field-ice were in various directions around. They had light baffling winds, clear and pleasant weather, with a smooth sea. The water was of a dark green colour. Standing into the bay for the purpose of approaching the land, they at 5 A.M. passed through drift-ice into an open space, and when they had again approached the field, hove-to for the purpose of sounding. Here bottom was found at the depth of eight hundred fathoms; and the matter brought up was similar to that obtained the day before. The distance between the points where these two soundings were obtained was but short.

At 8^h 30^m A.M., while attempting to box off the ship from some ice under the bow, she made a stern-board, which brought the stern so forcibly in contact with another mass of ice, that it seemed from the shock, as if it were entirely stove in; the rudder was so much canted from its position, as to carry away the starboard wheel-rope, and to wrench the neck of the rudder itself in such a manner as to render it unserviceable, or even worse than useless. In hopes of lessening the difficulty, relieving-tackles were applied to the tiller, but without effect, for it was discovered that the rudder had been so far twisted as to make a considerable angle with the keel, and every exertion to move it proved ineffectual.

All hands were now called, and every officer and man was speedily at his station. The ship was found to be rapidly entering the ice, and every effort to direct her course by the management of the sails proved fruitless. In this helpless condition scarcely a moment passed without a new shock in some quarter or other from the ice, and

every blow threatened instant destruction. The hope was not yet abandoned, that some temporary expedient might be found to bring the rudder again into use, until they should be extricated from this perilous situation. A stage was, therefore, rigged over the stern, for the purpose of examining into its state, but it was found to be so much injured that it was impossible to remedy its defects while in its place, and preparations were forthwith made for unshipping it. In the mean time the position of the vessel was every instant growing worse, surrounded as she was by masses of floe-ice, and driving further and further into it, towards an immense wall-sided icebergl. All attempts to get the vessel on the other tack failed, in consequence of her being so closely encompassed, and it was therefore thought expedient to attempt to bring her head round, by hanging her to an icebergl by the ice-anchors, and thus complete what had been partially effected by the sails. The anchor was attached, but just at the moment the hawser was passed on board, the ship took a start so suddenly astern, that the rope was literally dragged out of the men's hands before they could get a turn around the bits.

The ship now drove stern foremost into the midst of the huge masses of ice, striking the rudder a second time. This blow gave it the finishing stroke, by nearly wringing off the head, breaking two of the pintles, and the upper and lower brace.

The wind now began to freshen, and the floe-ice to set upon the ship. The sails were furlled, and spars rigged up and down the ship's sides as fenders. Attempts were again made to plant the ice-anchors, for which purpose the boats were lowered; but the confined space, and the force with which the pieces of ice ground against each other was so great, that the boats proved nearly as unmanageable as the ship. After much exertion, however, the ice-anchors were planted, and the hawser hauled taut. Here they for a time enjoyed comparative security, as the vessel hung by the anchors, which were planted in a large floe. The ice continued to close in rapidly upon them, grinding, crushing, and carrying away the fenders; and the wind, that had changed to seaward, rose with appearances that foreboded bad weather.

At 10^h 30^m this security was at an end; for the anchors, in spite of the exertions of the officers and men who were near them, broke loose, and the ship was again at the mercy of huge floating masses. A rapid stern-board was the consequence; and a contact with an ice-island, vast, perpendicular, and as high as the mastheads, appeared inevitable.

Every possible preparation was made to meet the expected shock. There was no noise or confusion, and the self-possession and admirable conduct of the commander inspired courage and confidence in all. Preparations were made to cockbill the yards, and spars were got out.

While these preparations were going forward, the imminence of the danger lessened for awhile: the anchors again held, and there was a hope that they might bring the vessel up before she struck. This hope, however, endured but for a moment; for the anchors, with the whole body of ice to which they were attached, came in, and the ship going astern, struck quartering upon a piece of ice which lay between her and the great ice-island.

This afforded the last hope of preventing her from coming in contact with it; and this hope failed also; for, grinding along the ice, she went nearly stern foremost, and struck with her larboard quarter upon the ice-island with a tremendous crash.

The first effect of this blow was to carry away the spanker-boom, the larboard stern-davit, and to crush the stern-boat. The starboard stern-davit was the next to receive the shock, and as this is connected with the spar-deck bulwarks, the whole of them were started; the knee, a rotten one, which bound the davit to the taffrail, was broken off, and with it all the stanchions to the plank-sheer, as far as the gangway.

Severe as was this shock, it happened fortunately that it was followed by as great a rebound. This gave the vessel a cant to starboard, and by the timely aid of the jib and other sails, carried her clear of the ice-island, and forced her into a small opening. While doing this, and before the vessel had moved half her length, an impending mass of ice and snow fell in her wake. Had this fallen only a few seconds earlier, it must have crushed the vessel to atoms.

It was also fortunate that the place where she struck the ice-island was near its southern end, so that there was but a short distance to be passed before she was entirely clear of it. This gave more room for the drifting ice, and permitted the vessel to be worked by her sails.

The relief from this pressing danger, however gratifying, gave no assurance of ultimate safety. The weather had an unusually stormy appearance; and the destruction of the vessel seemed almost inevitable, with the loss of every life on board. They had the melancholy alternative in prospect of being frozen to death one after the other, or perishing in a body by the dissolving of the iceberg on which they should take refuge, should the vessel sink.

When the dinner hour arrived the vessel was again fast in the ice, and nothing could for a time be done: it was therefore piped as usual. This served to divert the minds of the men from the dangers around them.

When the meal was over, the former manoeuvring was resorted to, the yards being kept swinging to and fro, in order to keep the ship's head in the required direction. She was labouring in the swell, with ice grinding and thumping against her on all sides; every moment something either fore or aft was carried away—chains, bolts, bobstays, bowsprit, shrouds; even the anchors were lifted, coming down with a surge that carried away the eyebolts and lashings, and left them to hang by the stoppers. The cut-water also was injured, and every timber seemed to groan.

Similar dangers attended those in the boats. Passed Midshipman Eld was sent to plant the ice-anchors: there was no room for the use of oars; the grinding and grating of the ice, as it rose and fell with the swell, rendered great precaution necessary to prevent the boat from being swamped or crushed; and when it is stated that two hours of hard exertion were required to plant the ice-anchors, some idea of the difficulty attending this service will be had. But this was not all; the difficulty of returning was equally great, and no possible way of effecting it seemed to suggest itself. The sides of the icebergs could not be ascended,

and to approach the berg on the side next the ship was certain destruction to the boat and crew, for the ice and water were foaming like a cauldron; and to abandon the former was equally out of the question. At last a chance offered, although almost a hopeless one, by passing between two of these bergs, that appeared on the other side of a small clear space. The boat was upon a small piece of ice, from which, by great exertions, she was launched; a few pulls at the oars brought them to the passage; the bergs were closing fast, and agitated by the swell; no time, therefore, was to be lost: the danger was already great, and in a few seconds it would be impossible to pass. They entered; their oars caught, and they got but half-way through when the icebergs closed in upon them, and pressed the gunwales together, so as almost to crush the boat; the water entered her, and she was near sinking, when the berg stopped, retreated, and by another hard shove they went through, and were soon alongside the ship.

Every exertion was now made to work the ship and avoid heavy thumps from the ice. The mode resorted to, to get the ship about, was a novel one, namely, by urging her lee bow against a piece of ice, which had the same effect as giving her a lee helm; but this was found rather too expensive a mode of effecting the object, and on the pumps showing an increase of water, it was discontinued. The ice had been rapidly accumulating around the ship, contracting still more narrowly the space or area in which they were, and rendering their situation more hazardous.

At 4 P.M., they clewed up the topsails, the ship being fast in the ice, with the wind directly in from the seaward. The ice-anchors were now again run out, in hopes of relieving her from some of the strain. A short time afterwards the ice clearing from the stern enabled them to unship the rudder, which was taken on board in two pieces: it was immediately placed on the quarter-deck, and all the carpenters employed on it.

It soon began to snow violently, and no clear sea could be seen from the ship in any direction. It becoming obscure, the chance was that they would have to take up their last abode there. About six o'clock the weather cleared a little, and the wind freshened; they parted the hawser attached to the ice-anchor, and made sail again for the clear sea, which could now be seen from the masthead. Towards 8 P.M., as if to blast the little hope that the continuance of clear weather inspired, the ship took a wrong cant, and was forced into a small opening leading further into the ice to leeward, and towards the massive walls of the berg. Great exertions were made, and fortunately, by the aid of the ice-anchors and sails, they succeeded in getting her round, and her head again pointed towards the clear sea; but they were shortly afterwards wedged in between two large masses of ice. At midnight the sea was observed to rise, although the wind had not increased, causing much motion among the ice; and the stormy appearance of the sky continued, and gave promise of a gale. The only hope left was to force the ship through, and every means were employed to effect this object. The ice they had now to contend with was of larger dimensions, and the increased sea rendered it doubly dangerous. Some of the shocks against it were so heavy as to excite fears that the ship's bow would be driven in,

and on one occasion three of the chronometers were thrown out of their beds of sawdust upon their sides. They continued to make but little headway, and the grinding and thumping on the ship was most painful. The hope of extricating her lessened every moment; for the quantity of ice between them and the sea was increasing, and the ship evidently moved with it to leeward. Few situations could be more trying, but the emergency was met by Captain Hudson with a coolness, perseverance, and presence of mind, which secured the admiration of all who were present, and inspired full confidence and a firm reliance in his ability to overcome every difficulty that lay within the power of human means.

In the afternoon of the 25th, the sea continued to increase, and the ship frequently struck against the masses of ice, while every foot they forged ahead carried them seemingly into a more precarious situation. At about 3 p.m., they found that the gripe had been beaten off, and they were now bruising up the stem and grinding away the bows. There appeared no other course but to drive her out, which was deemed the only chance of saving the ship and crew. All the canvass that would draw was therefore set to force her through; and the wind favouring them, they had by four o'clock succeeded in passing the thick and solid ice, and shortly afterwards found themselves in clear water, without a rudder, the gripe gone, and, as was afterwards found, the stem ground down to within an inch and a half of the wood-ends.

The carpenters were still employed on the rudder, and had succeeded in removing the broken pieces of the pintles from the second and third braces on the stern-post; the upper and lower pintles were broken, leaving only two to hang the rudder by. The weather seemed now to favour them, and about ten o'clock they had finished the rudder, which had been repaired in the best possible manner. Great credit is due to Mr. Dibble, the carpenter, (who left his sick bed on the occasion,) for his exertions, attention, and perseverance. He and the carpenter's crew worked twenty-four hours without intermission. The ship was now hove-to, for it was apprehended that her rolling would render the task of shipping the rudder troublesome. By meridian they were again in a situation to make sail to extricate themselves from a bay some thirty miles in extent, which, with the exception of the small opening by which they had entered, was apparently closed by the barrier.

Shortly afterwards, the wind becoming fair, they made all sail for the outlet. The weather proved fine, and the winds moderate. At midnight they

found the only opening left, which was not more than a quarter of a mile wide; they succeeded in passing through this, by 2 a.m., in a snow-storm, and felt grateful to God for their providential escape.

Captain Hudson now came to the conclusion of returning north. "After," as he says, "thoroughly turning over in my own mind the state of the ship,—with the head of the rudder gone, hanging by two braces, and in such a state that we could hardly hope to make it answer its purposes again, in encountering the boisterous weather we should have to pass through before reaching the first port,—the ship considerably strained; her starboard spar-deck bulwarks gone as far forward as the gangway; the gripe off, and the stern mutilated;—fully satisfied from this state of things that she was perfectly useless for cruising among icebergs, and the accompanying dangers, in thick foggy weather, to which, in these latitudes, we should be more or less subject, and where rapid evolutions were often necessary, in which the rudder must perform its part; and that the ship would require extensive repairs before being employed in surveying operations; and feeling that the season was rapidly coming round when our services would be required in that duty, I held a council of the ward-room officers, and required their opinions as to making any further attempts to cruise in these latitudes.

"There was but one opinion as to the necessity of the ship's returning north, with the exception of Mr. Emmons and Mr. Baldwin, who thought the rudder might stand, provided we did not get near the ice, or fall in with icebergs. This of course would be to effect little or nothing, and result only in a loss of time. I accordingly put the ship's head north, determined to proceed at once to Sydney, to effect the necessary repairs, so as to be ready at the earliest possible day to join the squadron."

Such were the dangers and difficulties from which the Peacock, by the admirable conduct of her officers and crew, directed by the consummate seamanship of her commander, was enabled at this time to escape. There still, however, remained thousands of miles of a stormy ocean to be encountered, with a ship so crippled as to be hardly capable of working, and injured to such an extent in her hull as to be kept afloat with difficulty. The narrative of the events of this perilous navigation must, however, be postponed, until I shall have given the proceedings of the other vessels of the squadron, while tracing out the position of the icy barrier, and following along the newly-discovered continent.

CHAPTER XVIII.

ANTARCTIC CRUISE. PROCEEDINGS OF THE VINCENNES.

PROCEEDINGS OF THE VINCENNES FROM THE TWENTY-SECOND OF JANUARY—DISAPPOINTMENT BAY—WATERING ON THE ICE—DIAGRAMS OF THE ICE-ISLANDS—THEIR UTILITY—VIOLENT GALE AND SNOW-STORM—NARROW ESCAPE FROM STRIKING THE ICE—THE OPEN SEA REACHED—RETURN OF FINE WEATHER—VINCENNES STANDS AGAIN TO THE SOUTH, AND REACHES THE ICY BARRIER—FINER'S BAY—SOUNDINGS IN THIRTY FATHOMS—ANOTHER VIOLENT GALE—REPORT OF THE MEDICAL OFFICERS—OPINION OF THE WARD-ROOM OFFICERS—DETERMINATION TO PROCEED WITH THE CRUISE—ITS EVENTS UP TO THE FOURTEENTH OF FEBRUARY—LANDING ON AN ICEBERG—SPECIMENS OF ROCKS OBTAINED—INQUIRY IN RELATION TO THE FORMATION OF ICEBERGS—THEIR SEPARATION FROM THE LAND—THEIR PROGRESS—FURTHER EVIDENCE IN RELATION TO THE ANTARCTIC CONTINENT—ESTIMATE OF THE RATE AT WHICH THE FLOATING ICE MOVES—THE VINCENNES BEGINS HER RETURN TO THE NORTH.

In taking up the narrative of the disaster sustained by the Peacock, with which the preceding chapter closes, the Vincennes and Porpoise were left on the 22nd of January.

On that day the Vincennes passed the place through which the Peacock entered, as has been related, on the 23rd, and found no opening. To judge from the manner in which the ice moved during the time the Peacock was enclosed in it, I am inclined to ascribe the alternate opening and closing of the passage into the bay, to a tide setting along this coast. In support of this opinion it is sufficient to state, that the strength of the winds experienced on board that vessel was at no time sufficient to account for the manner in which the ice was found to move.

About thirty miles to the westward of this point, the Vincennes passed a remarkable collection of tabular icebergs, for whose existence I can account in no other manner than by supposing them to be attached to a rocky islet, which formed a nucleus to which they adhered. It was quite obvious that they had not been formed in the place where they were seen, and must, therefore, have grounded, after being adrift.

On the 23rd of January, after passing around this group of icebergs, the sea was found comparatively clear, and a large open space showed itself to the southward. Into this space the course of the Vincennes was immediately directed. While thus steering to the south, the appearance of land was observed on either hand, both to the eastward and westward.

Pursuing this course, we by midnight reached the solid barrier, and all approach to the land on the east and west was entirely cut off by the close packing of the icebergs. I was, therefore, reluctantly compelled to return, not a little vexed that we were again foiled in our endeavour to reach the antarctic continent. This was a deep indentation in the coast, about twenty-five miles wide: we explored it to the depth of about fifteen miles, and did not reach its termination. This bay I have called Disappointment Bay: it is in latitude $67^{\circ} 4' 30''$ S., longitude $147^{\circ} 30'$ E. The weather was remarkably fine, with a bracing air: the thermometer in the air 22° , in the water 31° .

The next day, 24th, we stood out of the bay, and continued our course to the westward. About noon, to my surprise, I learnt that one of the

officers, Lieutenant Underwood, had marked on the log-slate that there was an opening of clear water, subtending three points of the compass, at the bottom of Disappointment Bay. Though confident that this was not the fact, in order to put this matter at rest, I at once determined to return, although forty miles distant, and ordered the ship about, to refute the assertion by the officer's own testimony. This was most effectually done the next morning, 25th, when the ship reached the identical spot, and all were fully convinced that no opening existed. The whole bay was enclosed by a firm barrier of ice, from north-north-west to east-north-east.

The weather proved delightful, with light airs from the southward, and I determined to take this opportunity to fill up the water-tanks with ice. The ship was hove-to, a hawser got in readiness, the boats lowered, and brought alongside of an iceberg well adapted to our purpose.

The same opportunity was also taken to make the magnetic observations on the ice, and to try the local attraction of the ship.

Many birds were seen about the ship, of which we were fortunate in obtaining specimens. The day was remarkably clear, and the same appearance of land was seen that had been witnessed on the 24th. We filled nineteen of our tanks with ice, after having allowed it to remain for some time on deck for the salt water to drain off in part, and it proved very potable.

At about 5 P.M., we had completed our required store of ice, and cast off, making sail to the northward.

In order that no further mistakes should take place as to the openings being passed, I issued an order, directing the officer of the deck on being relieved to go to the masthead, and report to me the exact situation of the ice; and this was continued during the remainder of our cruise among it.

In threading our way through the many icebergs, it occurred to me that they might be considered as islands, and a rough survey made of them, by taking their bearings at certain periods, and making diagrams of their positions. This was accordingly done, and every few hours they were inserted on the chart which I was constructing in my progress.

This I found to be very useful, and it gave me

confidence in proceeding, for I had a tolerable chart to retreat by in case of need, at least for a few hours, during which time I had reason to believe that there was not much probability of the icebergs changing their relative positions.

The dip observed on the ice was $87^{\circ} 30'$, and the variation $12^{\circ} 46'$ easterly. The compasses were found to be very sluggish, having but little horizontal directive force.

About half an hour after we cast off from the iceberg, a thick snow-storm came up, with the wind from the south-east. Although there were very many ice-islands around us, on our way out, I felt that I understood the ground well, having passed over it twice, and knowing I had a space of a few miles, only thinly sprinkled with icebergs, I hove-to with shortened sail. This was the first south-east wind we had had since being on this coast. I had been disappointed in not finding it from that quarter before; for I had been informed, by those who had navigated in high southern latitudes, that south-east would be the prevailing wind, and would be attended with fine weather. Now, however, with a fair wind, I was unable to run, for the weather was unfavourable.

At 6 A.M. on the 26th, we again made sail, and at 8 A.M. we discovered the Porpoise, to whom we made signals to come within hail. We found them all well, and compared chronometers.

As it still blew fresh from the south-east, and the weather became a little more clear, we both bore away, running through much drift-ice, at the rate of nine knots an hour. We had the barrier in sight; it was, however, too thick to see much beyond it. Sailing in this way I felt to be extremely hazardous; but our time was so short for the examination of this icy coast, that while the barrier was to be seen, I deemed it my duty to proceed. We fortunately, by good look-outs, and carefully conning the ship, were enabled to avoid any heavy thumps.

On the 27th, we again had the wind from south-west. The floe-ice had become so thick, that we found it impossible to get through it in the direction I wished to go, and we were compelled to pass round it. The Porpoise was in sight until noon. The weather proved beautifully clear. A long range of tabular icebergs was in sight to the southward, indicating, as I have before observed, that the coast was near. I passed through these, losing sight of the Porpoise to the north-west about noon, when we were in longitude $142^{\circ} 40' E.$, latitude $65^{\circ} 54' 21'' S.$, variation $5^{\circ} 8'$ easterly.

On the 28th, I found myself completely surrounded by the tabular icebergs; through which we continued to pass. Towards midnight the wind shifted to the south-east, and enabled me to haul more to the southward. At $9\frac{1}{2}$ A.M. we had another sight of the land ahead, and every prospect of nearing it, with a fine breeze. The sight of the icebergs around us, all of large dimensions, was beautiful. The greatest number in sight at one time was noted, and found to be more than a hundred, varying from a quarter of a mile to three miles in length. We took the most open route, and by eleven o'clock had run upwards of forty miles through them. We had the land now in plain view, but the weather soon began to thicken and the breeze to freshen. At noon it was so thick that every thing was hidden, and no observation

was obtained. The ship was hove-to, but shortly after again put under way, making several tacks to keep my position, which I felt was becoming a critical one, in case a gale should ensue. I therefore looked carefully over my chart, and was surprised at the vast number of icebergs that appeared on it. At 2 P.M. the barometer began to fall, and the weather to change for the worse. At 5 P.M. a gale was evidently coming on, so we took three reefs in the topsails. It appeared now that certain wreck would ensue, should we remain where we were; and after much consideration, I made up my mind to retrace my way, and seek the open space forty miles distant, taking for a landmark a remarkable berg that had been the last entered on the chart, and which would be a guide to my course out. I therefore stood for its position. The weather was so thick, that it was necessary to run close to it, to be quite sure of recognizing it, for on this seemed to depend our safety. About the estimated time we would take to pass over the distance, an iceberg was made (we were within one thousand feet of it) which, at first view, I felt confident was the one sought, but was not altogether satisfied afterwards. I therefore again consulted my chart, and became more doubtful of it. Just at that moment I was called on deck by an officer, who informed me that there were icebergs a short distance ahead! Such proved to be the case; our path was beset with them, and it was evident we could not regain our route. To return was worse, so having but little choice left, I determined to keep on. To encounter these icebergs so soon after seeing the other, was in some respects satisfactory, for it removed all doubts, and showed me that we were not near the track by which we entered. Nothing, therefore, was to be done but to keep a good look-out, and the ship under sufficient way to steer well. My safest plan was to keep as near our former track as possible, believing it to be most free of these masses.

At 8 P.M. it began to blow very hard, with a violent snow-storm, circumscribing our view, and rendering it impossible to see more than two ship's-lengths ahead. The cold was severe, and every spray that touched the ship was immediately converted into ice. At 9 P.M., the barometer still falling and the gale increasing, we reduced sail to close-reefed fore and main-topsails, reefed foresail and trysails, under which we passed numerous icebergs, some to windward, and some to leeward of us. At $10^h 30^m$, we found ourselves thickly beset with them, and had many narrow escapes; the excitement became intense; it required a constant change of helm to avoid those close aboard; and we were compelled to press the ship with canvas in order to escape them, by keeping her to windward. We thus passed close along their weather sides, and distinctly heard the roar of the surf dashing against them. We had, from time to time, glimpses of their obscure outline, appearing as though immediately above us. After many escapes, I found the ship so covered with ice, and the watch so powerless in managing her, that a little after midnight, on the 29th, I had all hands called. Scarcely had they been reported on deck, when it was made known to me that the gunner, Mr. Williamson, had fallen, broken his ribs, and otherwise injured himself, on the icy deck.

The gale at this moment was awful. We found

we were passing large masses of drift-ice, and ice-islands became more numerous. At a little after one o'clock it was terrific, and the sea was now so heavy, that I was obliged to reduce sail still further: the fore and main-topsails were clewed up; the former was furled, but the latter being a new sail, much difficulty was found in securing it.

A seaman, by the name of Brooks, in endeavouring to execute the order to furl, got on the lee yardarm, and the sail having blown over the yard, prevented his return. Not being aware of his position until it was reported to me from the fore-castle, he remained there some time. On my seeing him he appeared stiff, and clinging to the yard and lift. Spilling-lines were at once rove, and an officer with several men sent aloft to rescue him, which they succeeded in doing by passing a bowline around his body and dragging him into the top. He was almost frozen to death. Several of the best men were completely exhausted with cold, fatigue, and excitement, and were sent below. This added to our anxieties, and but little hope remained to me of escaping: I felt that neither prudence nor foresight could avail in protecting the ship and crew. All that could be done was to be prepared for any emergency, by keeping every one at his station.

We were swiftly dashing on, for I felt it necessary to keep the ship under rapid way through the water, to enable her to steer and work quickly. Suddenly many voices cried out, "Ice ahead!" then, "On the weather bow!" and again, "On the lee bow and abeam!" All hope of escape seemed in a moment to vanish; return we could not, as large ice-islands had just been passed to leeward: so we dashed on, expecting every moment the crash. The ship, in an instant, from having her lee guns under water, rose upright; and so close were we passing to leeward of one of these huge islands, that our trysails were almost thrown aback by the eddy wind. The helm was put up to pay the ship off, but the proximity of those under our lee bade me keep my course. All was now still except the distant roar of the wild storm, that was raging behind, before, and above us; the sea was in great agitation, and both officers and men were in the highest degree excited. The ship continued her way, and as we proceeded, a glimmering of hope arose, for we accidentally had hit upon a clear passage between two large ice-islands, which in fine weather we should not dare to have ventured through. The suspense endured while making our way between them was intense, but of short duration; and my spirits rose as I heard the whistling of the gale grow louder and louder before us, as we emerged from the passage. We had escaped an awful death, and were again tempest-tost.

We encountered many similar dangers that night. At half-past 4 A.M., I found we had reached the small open space laid down on my chart, and at five o'clock I hove-to the ship. I had been under intense excitement, and had not been off the deck for nine hours, and was now thankful to the Providence that had guided, watched over, and preserved us. Until 7 A.M. all hands were on deck, when there was some appearance of the weather moderating, and they were piped down.

This gale was from the south-east, from which quarter it blew during the whole of its strength;

and when it began to moderate, the wind veered to the southward. By noon we felt satisfied that the gale was over, and that we had escaped, although it was difficult to realize a sense of security when the perils we had just passed through were so fresh in our minds, and others still impending. Towards four o'clock it cleared off, and we saw but few ice-bergs near us. Our longitude was found to be 140° E., latitude $63^{\circ} 30'$ S., and I again made sail for the ice to the south, to pass over the very route we had just traversed through so many perils.

The wind had now hauled to the south-west. At 6 P.M., we again began to enter among ice-islands. The weather appeared settled; but I had so often been deceived by its fickleness, that I felt no reliance ought to be put in its continuance. A powerful inducement was held out to us, in the prospect of getting close enough to effect a landing; and this rendered us insensible to the dangers.

On the morning of the 30th the sun rose in great brilliancy, and the scene was altogether unlike that we had passed through only twenty-four hours before. All was now quiet; a brisk breeze blew from the eastward, all sail was set, and there was every prospect that we might accomplish our object; for the land was in sight, and the icebergs seemed floating in quiet. We wound our way through them in a sea so smooth that a yawl might have passed over it in safety. No straight line could have been drawn from us in any direction, that would not have cut a dozen icebergs in the same number of miles, and the wondering exclamations of the officers and crew were oft repeated,—"How could we have passed through them unharmed?" and, "What a lucky ship!" At eight o'clock, we had reached the icy barrier, and hove-to close to it. It was tantalizing, with the land in sight, to be again and again blocked out. Open water was seen near the land to the south-west of us, and a tortuous channel through the broken ice to leeward, apparently leading to it. All sail was immediately crowded; we passed rapidly through, and found ourselves again in clear water, which reached to the shores: the barrier extending in a line with our course, about two miles to windward, and a clear channel to the north-west, about two miles wide, as far as the eye could reach. Seeing this, I remarked to one of the officers that it would have been a good place to drift in during the last gale,—little thinking that in a few short hours it would serve us for that purpose, in still greater need. A brisk gale ensued, and the ship ran at the rate of nine or ten miles an hour; one reef was taken in the topsails, and we stood directly in for the most southerly part of the bay.

This bay was formed partly by rocks and partly by ice-islands. The latter were aground, and on the western side of the bay extended about five miles to the northward of our position.

While we stood on in this direction the gale increased, and our room became so circumscribed that we had not time on any one tack to reduce our canvas, before it became necessary to go about. In this way we approached within half a mile of the dark volcanic rocks, which appeared on both sides of us, and saw the land gradually rising beyond the ice to the height of three thousand feet, and entirely covered with snow. It could be distinctly seen extending to the east and west of our position fully sixty miles. I make this

bay in longitude $140^{\circ} 2' 30''$ E., latitude $66^{\circ} 45'$ S.; and, now that all were convinced of its existence, I gave the land the name of the Antarctic Continent. Some of the officers pointed out the appearance of smoke, as if from a volcano, but I was of opinion that this was nothing but the snow-drift, caused by the heavy squalls. There was too much wind at this time to tack; I therefore had recourse to luffing the vessel up in the wind, and wore her short round on her heel. At the same time we sounded, and found a hard bottom at the depth of no more than thirty fathoms. I have called this bay Piner's Bay, after the signal quarter-master of that name. It was impossible to lower a boat, or to remain longer; indeed, I felt it imperative on me to clear its confined space before the floating ice might close it up.

At $10^h 30^m$ we had gone round, and in an hour more we cleared the bay. At noon the wind had increased to a gale, and by one o'clock, P.M., we were reduced to storm-sails, with our top-gallant yards on deck. The barometer had again declined rapidly, proving a true indicator, but giving little or no warning. To run the gauntlet again among the icebergs was out of the question, for a large quantity of field-ice would have to be passed through, which must have done us considerable damage, if it did not entirely disable us. The clear space we occupied was retained until five or six o'clock, when I found the floe-ice was coming down upon us; I then determined to lay the ship for a fair drift through the channel I had observed in the morning, and which I had every reason to believe, from the wind (south-east) blowing directly through it, would not be obstructed until the floe-ice came down. It was a consolation to know that if we were compelled to drift, we should do so faster than the ice; I therefore thought it as well to avoid it as long as possible. Another reason determined me to delay the drifting to the latest moment: I did not believe that the extent of the channel we had seen in the morning was more than ten miles in extent, and at the rate we drifted, the end of it would be reached long before the gale was over. This, like the former gale, was an old-fashioned snow-storm. All the canvas we could show to it at one time was a close-reefed main-top-sail and fore-storm-staysail. It blew tremendously, and the sea we experienced was a short disagreeable one, but nothing to be compared to that which accompanied the first gale. From the shortness of the sea, I inferred that we had some current. This state of things continued for several hours, during which we every moment expected to reach the end of our channel. Since the last gale, the whole crew, officers and men, had been put in watch and watch, ready for an instantaneous call, and prepared for rapid movements. The snow was of the same sleety or cutting character as that of the previous day, and seemed as if armed with sharp icicles or needles.

The 31st brought no moderation of the weather. At 1 A.M., a group of ice-islands was reported, and shortly afterwards field-ice close under our lee. We wore ship instantly, and just avoided coming in contact with the latter. Sail was immediately made on the ship, and the scene of the former gale again gone through, with this exception, that we were now passing to and fro among icebergs imme-

diately to windward of the barrier, and each tack brought us nearer to it. Between 4 and 5 A.M., our space was becoming confined, and there was no abatement of the gale; I therefore, as it had cleared sufficiently to enable us to see a quarter of a mile, determined to bear up and run off north-north-west for a clear sea. In doing this we passed icebergs of all dimensions and heavy floe-ice. By $8^h 30^m$ we had run thirty miles, when, finding a more open sea, I judged we had partially cleared the ice. At noon the gale still continued. The lowest reading of the barometer during this gale was 28.59 in.

After lasting thirty hours, the gale, at 6 P.M., began to moderate a little, when we again made sail to the southward. I now felt inclined to seek Piner's Bay again, in order to effect a landing. This would have been a great personal gratification; but the bay was sixty miles distant, so that to revisit it would occupy time that was now precious; and feeling satisfied that a great extent of land wholly unknown lay to the westward, I deemed it my duty to proceed to its discovery, not doubting that if my opinions of its existence were correct, a place equally feasible for landing would be found. Another subject also presented itself, which, for a time, caused me some anxiety, and which I confess was not only unexpected by me, but directly at variance with my own observations on the condition of my crew. As I feel compelled to give a complete detail of our proceedings, I must now revert to this subject.

The following report of the medical officers of the ship was made to me on the day of its date:—

U. S. ship Vincennes,
At sea, January 31st, 1840.

SIR,—It becomes our duty, as medical officers of this ship, to report to you in writing the condition of the crew at the present time.

The number upon the list this morning is fifteen: most of these cases are consequent upon the extreme hardships and exposure they have undergone during the last gales of wind, when the ship has been surrounded with ice.

This number is not large, but it is necessary to state, that the general health of the crew, in our opinion, is decidedly affected, and that under ordinary circumstances the list would be very much increased, as the men under the present exigencies, actuated by a laudable desire to do their duty to the last, refrain from presenting themselves as applicants for the list.

Under these circumstances, we feel ourselves obliged to report that, in our opinion, a few days more of such exposure as they have already undergone, would reduce the number of the crew by sickness to such an extent as to hazard the safety of the ship and the lives of all on board.

Very respectfully, your obedient servants,
(Signed) J. L. Fox,

J. S. WHITTLE,
To Charles Wilkes, Esq. Assistant-surgeons.
Commanding exploring expedition.

Although my own opinion, as I have stated, differed from that expressed in the report, I deemed it my duty to ask the opinion of the ward-room officers, and also, in order to procure additional medical advice, restored to duty Acting-Surgeon

Gilchrist, who was under suspension. The opinion of the ward-room officers was asked in a written circular, of which the following is a copy.

U. S. ship Vincennes,
At sea, January 31st, 1840.

GENTLEMEN,—The receipt of the enclosed report of Drs. Fox and Whittle, relative to the health and condition of the crew of this ship, at this time, renders it necessary for me to decide whether it is expedient to push further south in exploration under the present circumstances.

As you are acquainted with all the circumstances, it is unnecessary to repeat them, except to remark, that your opinion is requested before I decide upon the course to be pursued, in consequence of the strong bias self-interest might give me in the prosecution of our arduous duties. I wish the report returned to me, and for you to communicate your opinion in writing.

I am, respectfully, &c,

CHARLES WILKES,

Commanding exploring expedition.

To the ward-room officers,
U. S. ship Vincennes.

Of the answers to this letter it is sufficient here to say, that a majority concurred in opinion with the report of the medical officers. Notwithstanding these opinions, I was not satisfied that there was sufficient cause to change my original determination of passing along to the appointed rendezvous; and after full consideration of the matter, I came to the conclusion, at whatever hazard to ship and crew, that it was my duty to proceed, and not give up the cruise until the ship should be totally disabled, or it should be evident to all that it was impossible to persist any longer. In bringing myself to this decision, I believe that I viewed the case on all sides with fairness, and allowed my duty to my country, my care for those whom it had committed to my charge, and my responsibility to the world, each to have its due weight.

The weather now moderated, and I ordered sail to be made. The 2nd of February found us about sixty miles to the westward of Piner's Bay, steering to the southward, and as usual among ice-islands, with the land in sight. The land had the same lofty appearance as before. We stood in until 3 P.M., when we were within two and a half miles of the icy cliffs by which the land was bounded on all sides. These were from one hundred and fifty to two hundred feet in height, quite perpendicular, and there was no appearance whatever of rocks; all was covered with ice and snow. A short distance from us to the westward was a long range of icebergs aground, which, contrary to the usual appearance, looked much weather-beaten. We tried for soundings, but did not get any with one hundred and fifty fathoms, although the water was much discoloured. The badness of the deep-sea line was a great annoyance to us, for deeper soundings would probably have obtained bottom. No break in the icy barrier, where a foot could be set on the rocks, was observable from aloft. The land still trended to the westward as far as the eye could reach, and continued to exhibit the same character as before. Our longitude now was 137° 2' E., latitude 66° 12' S.: we found the magnetic declination westerly.

This proved a fine day, so that we had an opportunity of airing the men's bedding, of ventilating the ship, and of getting rid of the ice, with which we were much encumbered. The thermometer varied from 33° to 36°. Our sick-list had increased the last few days to twenty; many of the men were affected with boils, which rendered them comparatively useless; and ulcers, which were caused by the least scratch, were exceedingly prevalent; but their food was good, they had plenty of it, and their spirits were excellent. The high land was seen this afternoon, but the barrier along which we were passing prevented any nearer approach. This evening it was perceptible that the days were becoming shorter, which was a new source of anxiety, for we were often surrounded by numerous ice-islands, which the darkness rendered more dangerous.

Towards evening the weather became unsettled, and the 3rd of February was ushered in by another gale, accompanied with snow. The barometer fell lower than heretofore, namely, to 28.460 in.; the thermometer stood at 33°. Before the thick snow came on, we had taken the bearings of the ice-islands, and finding we had a few miles comparatively free from them, I determined to await the result of the storm, and made every thing snug to encounter it. The gale continued throughout the day, and although it moderated after 5 P.M., we had some strong squalls, but nothing so violent as those we had already experienced. The ship, in consequence of the snow, became more damp and uncomfortable, and our sick-list was increased to thirty, who were rather overcome by want of rest and fatigue than affected by any disease. To remedy the dampness, a stove was placed on the gun-deck, and fires kept burning in the galleys on the berth-deck, more for the purpose of drying the men's clothes than for warmth. We had no observations this day, but the dead-reckoning gave the longitude 134° E., latitude 63° 49' S.

The 4th and 5th the weather continued the same. As the winds became lighter thick snow fell, and we were able to see only a short distance from the ship. We contrived by manœuvring to retain our position. On this last day we got a tolerable observation, which gave our longitude as 133° 42' E., and latitude 64° 6' S.

The first part of the 6th the same thick weather continued, but towards 4 P.M. it began to clear, when we again made sail, until we saw and took the bearings of the barrier. We found ourselves situated opposite the part of it we had seen three days before. It still had the appearance of being attached to the land, and in one uninterrupted line. Wishing to examine it closely, I hove-to for broad daylight. Many whales, penguins, flocks of birds, and some seals, were reported.

On the 7th we had much better weather, and continued all day running along the perpendicular icy barrier, about one hundred and fifty feet in height. Beyond it the outline of the high land could be well distinguished. At 6 P.M. we suddenly found the barrier trending to the southward, and the sea studded with icebergs. I now hauled off until daylight, in order to ascertain the trending of the land more exactly. I place this point, which I have named Cape Carr, after the first lieutenant of the Vincennes, in longitude 131° 40' E., and latitude 64° 49' S.

On the 8th, at daylight, we again made sail to the southward, and found at 4 A.M. the field of ice had stopped our progress, and the weather was thick. Land was no longer seen to the south, a deep bay apparently making in. We continued our course to the westward along the barrier, until 8 P.M., when we were again brought to. At 7 P.M. we had strong indications of land; the barrier was of the former perpendicular form, and later the outline of the continent appeared distinct though distant. The night was dark and unpleasant. At noon our longitude was $127^{\circ} 7' E.$, and latitude $65^{\circ} 3' S.$; variation $14^{\circ} 30'$ westerly.

On the 9th we had the finest day we had yet experienced on this coast; the wind had veered from the east to south-west, and given us a clear, bracing, and wholesome atmosphere. The barrier exhibited the same appearance as yesterday. Our longitude was $125^{\circ} 19' E.$, latitude $65^{\circ} 8' S.$, variation $32^{\circ} 45'$ westerly. The current was tried, but none found; the pot was only visible at five fathoms; the colour of the water a dirty green; the dip sector gave $3' 15''$. I never saw a clearer horizon, or one better defined than we had to the northward. The icy barrier was really beautiful. At midnight we had a splendid display of the aurora australis, extending all around the northern horizon, from west-by-north to east-north-east. Before its appearance, a few clouds only were seen in the south-east, on which the setting sun cast a red tint, that barely rendered them visible. The horizon, with this exception, appeared clear and well defined. The spurs or brushes of light frequently reached the zenith, converging to a point near it.

Although no clouds could be seen in the direction of the aurora before or after its appearance, yet when it was first seen, there appeared clouds, of the form of massive cumuli, tinged with pale yellow, and behind them arose brilliant red, purple, orange, and yellow tints, streaming upwards in innumerable radiations, with all the shades that a combination of these colours could effect. In its most brilliant state it lasted about twenty minutes. The gold-leaf electrometer was tried, but without being affected: the instrument, however, was not very sensitive. Being somewhat surprised at the vast mass of cumuli which appeared during the continuance of the aurora, I watched after its disappearance till daylight, but could see only a few clouds: I am therefore inclined to impute the phenomenon to some deception caused by the light of the aurora. The apparent altitude of these clouds was 8° .

On the 10th we were again favoured by the weather; it gave us a fine sunshine, and an opportunity of airing the ship and drying the clothes. All the sick were improving in health.

Running close along the barrier, which continued of the same character, although more broken than yesterday, we saw an appearance of land, although indistinctly, to the southward. The water was of the same colour here as before, and the wind being from the south-south-east, we made some progress, and found ourselves in longitude $122^{\circ} 35' E.$, latitude $65^{\circ} 27' S.$: the variation had now increased to $44^{\circ} 30'$ westerly. No aurora was seen this night, although it was looked for anxiously.

11th. The barometer had been stationary at

29.080 in. for the last three days: it now began to fall; the temperature of the air was 31° , of the water 32° . The fall of the barometer was soon followed by snow and thick weather. The trending of the barrier had been south-west-by-west, and a good deal of floe-ice had been met with, which we ran through. The sea was quite smooth, and many icebergs were enclosed in the barrier, which was very compact, and composed of flat fields. At 10 P.M., I found it too dark to run, and hove-to.

During the 12th we had pleasant weather, and at 2 A.M. filled away. At 8 A.M., land was reported to the south-west. Keeping along the barrier and increasing our latitude, I again had hopes of getting near the land. We passed through great quantities of large floe-ice until 1 P.M., when the solid barrier prevented our further progress. Land was now distinctly seen, from eighteen to twenty miles distant, bearing from south-south-east to south-west,—a lofty mountain range, covered with snow, though showing many ridges and indentations. I laid the ship to for three hours, in hopes of discovering some opening or movement in the ice, but none was experienced. I tried the current, and found none. The water was of a dirty dark green. We sounded with the wire-line in two hundred and fifty fathoms, and found no bottom. The temperature at that depth was $30\frac{1}{2}^{\circ}$, of the air 31° . The barrier had in places the appearance of being broken up, and we had decreased our longitude to $112^{\circ} 16' 12'' E.$, while our latitude was $64^{\circ} 57' S.$ This puts the land in about $65^{\circ} 29' S.$, and its trending nearly east and west. The line of the icy barrier was generally uniform, although it was occasionally pierced with deep bays. We saw some icebergs with decided spots of earth on them, which gave me hopes of yet obtaining the object of my wishes. The water was remarkably smooth during this day, and the weather clear, enabling us to see a great distance. Two hours after we bore away, we left the floe-ice, and entered a clear sea to the westward, where we lost sight of the barrier for a time; but in hauling up to the south-west, it was, by 8 P.M., within three miles of us, when we again kept off parallel to its trending. The appearance of land still continued. Shortly after, I hove-to, for the purpose of awaiting the daylight to continue our observations of the land, with little prospect or probability of reaching it, from the immense quantity of ice which continued to form an impenetrable barrier.

13th. At 2 A.M. we made sail to the south-west in order to close with the barrier, which we found retreated in that direction, and gave us every prospect of getting nearer to it. Our course, for the most part, was through icebergs of tabular form. In the afternoon we had the land ahead, and stood in for it with a light breeze until $6\frac{1}{2}$ P.M., when I judged it to be ten or twelve miles distant. It was very distinct, and extended from west-south-west to south-south-east. We were now in longitude $106^{\circ} 40' E.$, and latitude $65^{\circ} 57' S.$; the variation was $54^{\circ} 30'$ westerly. The water was very green. We sounded in three hundred fathoms, and found no bottom. The weather having an unsettled appearance, we stood off to seek a clearer space for the night. The land left was high, rounded, and covered with snow, resembling

that first discovered, and had the appearance of being bound by perpendicular icy cliffs.

14th. At daylight we again made sail for the land, beating in for it until 11 A.M., when we found any further progress quite impossible. I then judged that it was seven or eight miles distant. The day was remarkably clear, and the land very distinct. By measurement, we made the extent of coast of the Antarctic Continent, which was then in sight, seventy-five miles, and by approximate measurement, three thousand feet high. It was entirely covered with snow. Longitude at noon, $106^{\circ} 18' 42''$ E., latitude $65^{\circ} 59' 40''$ S., variation $57^{\circ} 5'$ westerly. On running in, we had passed several icebergs greatly discoloured with earth, and finding we could not approach the shore any nearer, I determined to land on the largest ice-island that seemed accessible, to make dip, intensity, and variation observations. On coming up with it, about one and a half mile from where the barrier had stopped us, I hove the ship to, lowered the boats, and fortunately effected a landing. We found embedded in it, in places, boulders, stones, gravel, sand, and mud or clay. The larger specimens were of red sandstone and basalt. No signs of stratification were to be seen in it, but it was in places formed of icy conglomerate (if I may use the expression), composed of large pieces of rocks, as it were frozen together, and the ice was extremely hard and flint-like. The largest boulder embedded in it was about five or six feet in diameter, but being situated under the shelf of the iceberg, we were not able to get at it. Many specimens were obtained, and it was amusing to see the eagerness and desire of all hands to possess themselves of a piece of the Antarctic Continent. These pieces were in great demand during the remainder of the cruise. In the centre of this iceberg was found a pond of most delicious water, over which was a scum of ice about ten inches thick. We obtained from it about five hundred gallons. We remained upon this iceberg several hours, and the men amused themselves to their hearts' content in sliding. The pond was three feet deep, extending over an area of an acre, and contained sufficient water for half-a-dozen ships. The temperature of the water was 31° . This island had been undoubtedly turned partly over, and had precisely the same appearance that the icy barrier would have exhibited if it had been turned bottom up and subsequently much worn by storms. There was no doubt that it had been detached from the land, which was about eight miles distant.

Around the iceberg we found many species of zoophytes, viz. salpæ, a beautiful specimen of *elio helicina*, some large pelagic, and many small crustacea. I made several drawings of them. This day, notwithstanding our disappointment in being still repelled from treading on the new continent, was spent with much gratification, and gave us many new specimens from it.

Finding that we had reached the longitude of 105° E., before the time anticipated, and being desirous to pursue the discoveries further west, I left a signal flying on this berg, with a bottle containing instructions for the other vessels, directing them to proceed to the westward as far as they could, in the time which should remain prior to the 1st of March. At 8 P.M. we joined the ship, and bore away again to the west-

ward, intending to pursue the route pointed out to them.

On the 15th we passed many icebergs much discoloured with earth, stones, &c., none of which appeared of recent formation. The weather this day became lowering, and the breeze fresh; we double-reefed the topsails, and made every thing snug: the wind was from the southward. At noon this day we were in longitude 104° E., latitude $64^{\circ} 6'$ S. The sea had been remarkably smooth the last few days, with no swell; and I began to entertain the idea that we might have a large body of ice to the northward of us; for the position where Cook found the barrier in 1773 was two hundred miles further to the north. I determined, however, to pass on in our explorations, hoping they might enable me to join that of Enderby's Land. I deemed it a great object actually to prove the continuity with it if possible; and if disappointed in this, I should at any rate ascertain whether there had been any change in the ice in this quarter, since the time of Cook, which had been done already near his *Ne Plus Ultra*.

We had a vast number of whales about us this day, as well as penguins, Cape pigeons, white and gray, and small and large petrels. Some seals also were seen.

I was now happy to find the health of my crew had become re-established, and that only a few remained on the sick-list. This, I think was effected by constant attention to their being warmly clothed.

The icebergs were covered with penguins. Several officers landed on the icebergs to get a few as specimens. On their return, some penguins followed them closely, particularly one, who at last leaped into the boat. It was supposed that its mate had been among those taken, and that it had followed on that account. If this were the fact, it would show a remarkable instinctive affection in this bird.

On the 16th, the barrier of ice trended to the northward, and we were obliged to haul to the north-east, passing through a large number of ice-islands, many of which were stained with earth. In the afternoon a large sea-elephant was discovered on the ice; two boats were sent to effect his capture, and many balls were fired into him, but he showed the utmost indifference to their effect, doing no more than to raise his head at each shot. He contrived to escape by floundering over the ice until he reached the water, in which he was quite a different being. At about 7 P.M., Dr. Fox was despatched in a boat to visit an ice-island that was very much discoloured with clay in patches. He reported that there was upon it a large pond of muddy water, not frozen, although the temperature on board was much below the freezing point. We observed around the icebergs numerous right whales, puffing in all directions. A large quantity of small crustacea, including shrimps, were here seen around the icebergs. These are believed to be the cause that attracts whales to these parts; they also supply the numerous penguins with their food. For several days I observed a great difference in the wind, by day and by night. It had been fresh from the hour of seven in the morning until 8 P.M., when it generally becomes light or dies away altogether. To-day we found ourselves in longitude 99° E., and latitude

64° 21' S. We to-day made observations throughout the twenty-four hours with Leslie's photometer.

On the 17th, about 10 A.M., we discovered the barrier extending in a line ahead, and running north and south as far as the eye could reach. Appearances of land were also seen to the southwest, and its trending seemed to be to the northward. We were thus cut off from any further progress to the westward, and obliged to retrace our steps. This position of the ice disappointed me, although it concurred with what was reasonably to be expected. We were now in longitude 97° 37' E., and latitude 64° 1' S.; our variation was 56° 21' westerly, being again on the decrease. To-day we had several snow-squalls, which, instead of being in flakes, was in small grains, as round as shot, and of various sizes, from that of mustard-seed to buckshot. It was remarkably dry, pure white, and not at all like hail. We found the bay we had entered was fifty or sixty miles in depth, and having run in on its southern side, I determined to return along its northern shore, which we set about with much anxiety, as the weather began to change for the worse. Our situation was by no means such as I should have chosen to encounter bad weather in, the bay being sprinkled with a great many large icebergs. Here we met with a large number of whales, whose curiosity seemed awakened by our presence. Their proximity, however, was any thing but pleasant to us, and their blowings resembled that of a number of locomotives. Their close approach was a convincing proof that they had never been exposed to the pursuit of their skilful hunters. They were of the fin-back species, and of extraordinary size.

Between ten and eleven o'clock at night it was entirely clear over head, and we were gratified with a splendid exhibition of the aurora australis. It exceeded any thing of the kind I had heretofore witnessed; its activity was inconceivable, darting from the zenith to the horizon in all directions in the most brilliant coruscations; rays proceeding as if from a point in the zenith, flashed in brilliant pencillings of light, like sparks of electric fluid in vacuo, and reappeared again to vanish; forming themselves into one body, like an umbrella, or fan, shut up; again emerging to flit across the sky with the rapidity of light, they showed all the prismatic colours at once or in quick succession. So remarkable were the phenomena that even our sailors were constantly exclaiming in admiration of its brilliancy. The best position in which to view it was by lying flat upon the deck, and looking up. The electrometer was tried, but no effect perceived. The star Canopus was in the zenith at the time, and though visible through the aurora, was much diminished in brightness. On this night also the moon was partially eclipsed.

Large icebergs had now become very numerous, and strengthened the belief that the land existing in this vicinity had taken a very decided trend to the northward. I accordingly followed up the northern barrier closely, and passed through the thickest of these bergs, well knowing from our experience that we should have little or no opportunity of seeing the land, unless on the inner side of them. It appeared as though they had collected here from other places, and it is impossible to form an idea of the small space to which we were at times confined. Upwards of one hundred ice-

islands could be counted at a time without the aid of a glass, some of which were several miles long. We enjoyed this beautiful sight with the more pleasure, for we had become used to them, and knew from experience that it was possible to navigate through them without accident.

On the 18th, we continued beating to the eastward, and found no end to the apparently interminable barrier. We had a smooth sea, and better weather than I anticipated. At noon, we had retraced our way about forty miles. To-day we again had snow, which fell in the form of regular six-pointed stars. The needles of which these stars were formed were quite distinct, and of regular crystals. The temperature at the time was 28°. The barometer stood at 28.76 in., about three-tenths lower than we had had it for the last twelve days. The wind was easterly.

19th. During this day the barrier trended more to the north-east, and we not unfrequently entered bays so deep as to find ourselves, on reaching the extremity, cut off by the barrier, and compelled to return to within a few miles of the place where we had entered. I thought at first that this might have been caused by the tide or current, but repeated trials showed none. Neither did I detect any motion in the floating ice except what was caused by the wind. Our longitude to-day was 101° E., latitude 63° 2' S. Some anxiety seemed to exist among the officers and crew lest we should find ourselves embayed or cut off from the clear sea, by a line of barrier. There appeared strong reason for this apprehension, as the smooth sea we had had for several days still continued; we had been sailing as if upon a river, and the water had not assumed its blue colour.

It was, therefore, with great pleasure that, on the 20th, a slight swell was perceived, and the barrier began to trend more to the northward, and afterwards again to the westward. In the morning we found ourselves still surrounded by great numbers of ice-islands. After obtaining a tolerably clear space, the day being rather favourable, we sounded with the deep-sea line eight hundred and fifty fathoms. Six's thermometer gave at the surface 31°, and at the depth of eight hundred and fifty fathoms 35°, an increase of four degrees. The current was again tried, but none was found. A white object was visible at eleven fathoms. The water had now assumed a bluish cast.

We endeavoured to-day to land on an iceberg, but there was too much sea. Shrimps were in great quantities about it, but swam too deep to be taken. The wind again hauled to the westward, which disappointed me, as I was in hopes of getting to the position where Cook saw the ice in 1773, being now nearly in the same latitude. It was less than one hundred miles to the westward of us; and little doubt can exist that its situation has not materially changed in sixty-seven years.

The observations of the squadron during this season's antarctic cruise, together with those of the preceding year, would seem to confirm the opinion that very little change takes place in the line of ice. It may be inferred that the line of perpetual congelation exists in a lower latitude in some parts of the southern hemisphere than in others. The icy barrier retreats several degrees to the south of the Antarctic Circle to the west of Cape Horn, while to the eastward it in places advances to the north-

ward of that line, which is no doubt owing to the situation of the land. From the great quantities of ice to be found drifting in all parts of the ocean in high southern latitudes, I am induced to believe that the formation of the ice-islands is much more rapid than is generally supposed. The manner of their formation claimed much of my attention while among them, and I think it may be explained satisfactorily and without difficulty. In the first place, I conceive that ice requires a nucleus, whereon the fogs, snow, and rain, may congeal and accumulate; this the land affords. Accident then separates part of this mass of ice from the land, when it drifts off, and is broken into many pieces, and part of this may again join that which is in process of formation.

From the accumulation of snow, such a mass speedily assumes a flat or table-topped shape, and continues to increase. As these layers accumulate, the field-ice begins to sink, each storm (there of frequent occurrence) tending to give it more weight. The part which is now attached to the land remains aground, whilst that which is more remote being in deep water is free to sink. The accumulated weight on its outer edge produces fissures or fractures at the point where it takes the ground, which the frosts increase; thus separated, the surface again becomes horizontal, and continues to receive new layers from snow, rain, and even fogs, being still retained to the parent mass by the force of attraction. The fogs have no small influence in contributing to the accumulation: some idea may be formed of the increase from this cause, from the fact that during a few hours the ice accumulated to the thickness of a quarter of an inch on our rigging and spars, though neither rain nor snow fell. It may, therefore, I think, be safely asserted that these icebergs are at all times on the increase; for there are few days, according to our experience in this climate, in which some mode of precipitation does not prevail in these high latitudes, where, according to our observations, ice seldom melts. The temperature of even the summer months being rarely above the freezing point, masses of a thousand feet in thickness might require but few years to form. Icebergs were seen in all stages of formation, from five to two hundred feet above the surface, and each exposed its stratification in horizontal layers from six inches to four feet in thickness. When the icebergs are fully formed, they have a tabular and stratified appearance, and are perfectly wall-sided, varying from one hundred and eighty to two hundred and ten feet in height. These were frequently found by us in their original situation, attached to the land, and having the horizontal stratification distinctly visible.

In some places we sailed for more than fifty miles together, along a straight and perpendicular wall, from one hundred and fifty to two hundred feet in height, with the land behind it. The icebergs found along the coast afloat were from a quarter of a mile to five miles in length; their separation from the land may be effected by severe frost rending them asunder, after which the violent and frequent storms may be considered a sufficient cause to overcome the attraction which holds them to the parent mass. In their next stage they exhibit the process of decay, being found fifty or sixty miles from the land, and for the most part

with their surfaces inclined at a considerable angle to the horizon. This is caused by a change in the position of the centre of gravity, arising from the abrading action of the waves.

By our observations on the temperature of the sea, it is evident that these ice-islands can be little changed by the melting process before they reach the latitude of 60°. The temperature of the sea (as observed by the vessels going to and returning from the south), showed but little change above this latitude, and no doubt it was at its maximum, as it was then the height of the summer season.

During their drift to the northward, on reaching lower latitudes, and as their distance from the land increases, they are found in all stages of decay; some forming obelisks; others towers and Gothic arches; and all more or less perforated: some exhibit lofty columns, with a natural bridge resting on them of a lightness and beauty inconceivable in any other material.

While in this state, they rarely exhibit any signs of stratification, and some appear to be formed of a soft and porous ice; others are quite blue; others again show a green tint, and are of hard flinty ice. Large ice-islands are seen that retain their tabular tops nearly entire until they reach a low latitude, when their dissolution rapidly ensues; whilst some have lost all resemblance to their original formation, and had evidently been overturned. The process of actually rending asunder was not witnessed by any of the vessels, although in the *Flying-Fish*, when during fogs they were in close proximity to large ice-islands, they inferred from the loud crashing, and the sudden splashing of the sea on her, that such occurrences had taken place. As the bergs gradually become worn by the abrasion of the sea, they in many cases form large overhanging shelves, about two or three feet above the water, extending out ten or twelve feet; the under part of this projecting mass exhibits the appearance of a collection of icicles hanging from it. The temperature of the water when among the icebergs, was found below or about the freezing point.

I have before spoken of the boulders embedded in the icebergs. All those that I had an opportunity of observing, apparently formed a part of the nucleus, and were surrounded by extremely compact ice, so that they appear to be connected with that portion of the ice that would be the last to dissolve, and these boulders would therefore in all probability be carried to the farthest extent of their range before they were let loose or deposited.

The ice-islands, on being detached from their original place of formation by some violent storm, are conveyed to the westward by the south-east winds which are prevalent here, and are found, the first season after their separation, about seventy miles north of the barrier. This was inferred from the observations of both the *Vincennes* and *Porpoise*, the greatest number having been found about that distance from the barrier. That these were recently detached is proved by their stratified appearance; while those at a greater distance had lost their primitive form, were much worn, and showed many more signs of decay. Near the extreme point of the barrier visited, in longitude 97° E., latitude 62° 30' S., and where it begins to trend to the westward, vast collections of these islands were encountered. From this point they

must pass to the northward during the next season, partly influenced by the current, and partly scattered by the prevailing winds, until they reach the sixtieth degree of latitude, when they encounter the easterly and north-easterly streams that are known to prevail, which carry them rapidly to the north.

Our data for their actual drift, though not altogether positive, are probably the best that can be had, and will go far towards ascertaining the velocity of their progress to lower latitudes; our observations also furnish some estimate of the time in which they are formed. On our way south, we did not fall in with ice-islands until we reached latitude 61° S. The Peacock was the first to return, and nearly upon the track by which we had gone south; the last seen by her was in 55° S. The Vincennes, on her return fifty days later, saw them in 51° S. The Porpoise, about the same time, in 53° S. The observation in the Vincennes gives a distance of ten degrees of latitude, or six hundred miles to be passed over in fifty days, which would give about half a mile an hour; or, taking the Peacock's observations, a more rapid rate would be given, nearly three-fourths of a mile. Many icebergs were met in the latitude of 42° S., by outward-bound ships to Sydney, in the month of November; these, I learned, were much worn, and showed lofty pinnacles, exhibiting no appearance of having ever been of a tabular form. These no doubt are such as were detached during a former season, and being disengaged from the barrier, would be naturally, early the next season, drifted by the easterly current as well as the westerly wind, and would pursue the direction they give them. They would therefore be driven to the north-east as far as the south-east winds prevail, and when these veer to the westward would receive an easterly direction. It is where these winds prevail that they are most frequently found by the outward-bound vessels,—between the latitudes of 40° and 50° S.

Respecting the period of time required for the formation of these ice-islands, much light cannot be expected to be thrown on the subject; but the few facts derived from observations lead to some conclusions. Many of them were measured, and their altitude found to be from fifty to two hundred and fifty feet; eighty distinct stratifications were counted in some of the highest, and in the smallest thirty, which appeared to average a little more than two feet in thickness. Supposing the average fall of snow in these high latitudes to be an inch a day, or thirty feet a year, the largest icebergs would take more than thirty years to form. They were seen by us in all the stages of their growth, and all bore unequivocal marks of the same origin. The distance from the land at which they were forming, fully satisfied me that their fresh water could only be derived from the snows, &c.

The movement of the ice along the coast is entirely to the westward, and all the large ranges of ice-islands and bergs were found in that direction, while the eastern portion was comparatively free from it. A difference was found in the position of the floe-ice by the different vessels, caused rather by the wind than by the tide. When the Vincennes and Porpoise passed the opening by which the Peacock entered, it was found closed, although only twenty-four hours had elapsed. It

has been seen that the ice had much movement during the time the Peacock was beset by it, and the bay was all but closed when she effected her escape. Another instance occurred, where the Porpoise, in about the longitude of 130° E., found the impracticable barrier a few miles further south than the Vincennes did six or seven days after; but this fact is not to be received as warranting any general conclusion, on account of the occurrence of south-east gales during the intermediate time. The trials for currents have, for the most part, shown none to exist. The Porpoise, it is true, experienced some, but these were generally after a gale. If currents do exist, their tendency is westward, which I think the drift of the ice would clearly prove. The difference between the astronomic positions and those given by dead-reckonings, was of no avail here as a test*, for the courses of the vessels among the ice were so tortuous, that the latter could not be depended upon.

The winds which prevail from the south-west to the south-east occasionally bring clear weather, interrupted by flurries of snow; the north wind is light, and brings thick fogs, attended by a rise of temperature. Extremes of weather are experienced in rapid succession, and it is truly a fickle climate.

The evidence that an extensive continent lies within the icy barrier, must have appeared in the account of my proceedings, but will be, I think, more forcibly exhibited by a comparison with the aspect of other lands in the same southern parallel. Palmer's Land, for instance, which is in like manner invested with ice, is so at certain seasons of the year only, while at others it is quite clear, because strong currents prevail there, which sweep the ice off to the north-east. Along the Antarctic Continent for the whole distance explored, which is upwards of fifteen hundred miles, no open strait is found. The coast, where the ice permitted approach, was found enveloped with a perpendicular barrier, in some cases unbroken for fifty miles. If there was only a chain of islands, the outline of the ice would undoubtedly be of another form; and it is scarcely to be conceived that so long a chain could extend so nearly in the same parallel of latitude. The land has none of the abruptness of termination that the islands of high southern latitudes exhibit; and I am satisfied that it exists in one uninterrupted line of coast, from Ringgold's Knoll, in the east, to Enderby's Land, in the west; that the coast (at longitude 95° E.) trends to the north, and this will account for the icy barrier existing, with little alteration, where it was seen by Cook in 1773. The vast number of ice-islands conclusively points out that there is some extensive nucleus which retains them in their position; for I can see no reason why the ice should not be disengaged from islands, if they were such, as happens in all other cases in like latitudes. The formation of the coast is different from what would probably be found near islands, soundings being obtained in comparatively shoal water; and the colour of the water also indicates that it is not like other southern lands, abrupt and precipitous. This cause is sufficient to retain the huge masses of ice, by their being attached by their lower surfaces instead of their sides only.

* The fact of there being no northerly current along this extended line of coast, is a strong proof in my mind of its being a continent, instead of a range of islands.

Much inquiry and a strong desire has been evinced by geologists, to ascertain the extent to which these ice-islands travel, the boulders and masses of earth they transport, and the direction they take.

From my own observations, and the information I have collected, there appears a great difference in the movements of these vast masses; in some years, great numbers of them have floated north from the Antarctic Circle, and even at times obstructed the navigation about the capes. The year 1832 was remarkable in this respect; many vessels bound round Cape Horn from the Pacific, were obliged to put back to Chili, in consequence of the dangers arising from ice; while, during the preceding and following years, little or none was seen: this would lead to the belief, that great changes must take place in the higher latitudes, or the prevalence of some cause to detach the ice-islands from the barrier in such great quantities as to cover almost the entire section of the ocean south of the latitude 50° S. Taking the early part of the (southern) spring, as the time of separation, we are enabled to make some estimate of the velocity with which they move: many masters of vessels have met them some six or seven hundred miles from the barrier, from sixty to eighty days after this period, which will give a near approximation to our results heretofore stated.

The season of 1839 and 1840 was considered as an open one, from the large masses of ice that were met with in a low latitude, by vessels that arrived from Europe at Sydney: many of them were seen as far north as latitude 42° S.

The causes that prevail to detach and carry them north are difficult to assign. I have referred to the most probable ones that would detach them from the parent mass in their formation. Our frequent trials of currents, as has been stated, did not give us the assurance that any existed; but there is little doubt in my mind that they do prevail. I should not, however, look to a surface current as being the motive power that carries these immense masses at the rate they move; comparatively speaking, their great bulk is below the influence of any surface current, and the rapid drift of these masses by winds is still more improbable; therefore I conceive we must look to an under current as their great propeller. In one trial of the deep-sea thermometer, we found the temperature beneath four degrees warmer than the surface. Off Cape Horn, the under temperature was found as cold as among the ice itself; repeated experiments have shown the same to occur in the arctic regions. From this I would draw the conclusion that changes are going on, and it appears to me to be very reasonable to suppose, that at periods, currents to and from the poles should at times exist; it is true, we most generally find the latter to prevail, as far as our knowledge of facts extends, but we have not sufficient information yet to decide that there is not a reflow towards the pole; the very circumstance of the current setting from the higher latitudes, would seem a good argument that there must be some counter-current to maintain the level of the waters. These masses, then, are most probably carried away in the seasons when the polar streams are the strongest, and are borne along by them at the velocity with which they move: that these do

not occur annually may be inferred from the absence of ice-islands in the lower latitudes; and that it is not from the scarcity of them, those who shared the dangers of the antarctic cruise, will, I have little doubt, be ready to testify; for, although great numbers of them studded the ocean that year, yet the narrative shows that vast numbers of them were left.

The specific gravity of the ice varies very much, as might naturally be expected; for while some of it is porous and of a snowy texture, other islands are in great part composed of a compact blue flinty ice. This difference is occasioned by the latter becoming saturated with water, which afterwards freezes.

On the ice there was usually a covering of about two feet of snow, which in places had upon it a crust of ice not strong enough to bear the weight of a man. Those ice-islands, which after having been once seen, were again passed through immediately after a gale, were observed to be changed in appearance; but though for forty-eight hours a severe storm had been experienced, they had not undergone so great a transformation as not to be recognized. They also appeared to have shifted their position with regard to one another, their former bias and trendings being broken up.

During our stay on the icy coast, I saw nothing of what is termed pack-ice,—that is, pieces forced one upon the other by the action of the sea or currents.

On the 21st, the weather became unsettled, with light westerly winds, and we made but little progress to the westward. The barrier, at 6 P.M., was seen trending to the westward. In consequence of indications that threatened bad weather, I deemed it useless risk to remain in the proximity of so many ice-islands; and a strong breeze, with squally weather, having already set in, I took advantage of it, feeling satisfied that our further continuance in this icy region would not only be attended with peril to the ship, but would cause a waste of the time which was demanded by my other duties; and having nearly three thousand miles to sail to our next port (Bay of Islands), I made up my mind to turn the head of the vessel northward.

I therefore had the officers and crew called aft, thanked them all for their exertions and good conduct during the trying scenes they had gone through, congratulated them on the success that had attended us, and informed them that I had determined to bear up and return north.

Having only twenty-five days' full allowance of water, I ordered its issue to be reduced to half allowance.

I have seldom seen so many happy faces, or such rejoicings, as the announcement of my intention to return produced. But although the crew were delighted at the termination of this dangerous cruise, not a word of impatience or discontent had been heard during its continuance. Neither had there been occasion for punishment; and I could not but be thankful to have been enabled to conduct the ship through so difficult and dangerous a navigation without a single accident, with a crew in as good, if not in better condition than when we first reached the icy barrier. For myself, I indeed felt worse for the fatigues and anxieties I had undergone; but I was able to attend to all my duties,

and considered myself amply repaid for my impaired health by the important discoveries we had made, and the success that had attended our exertions.

I shall now leave the Vincennes to pursue her route northward, and return to the Porpoise, the result of whose proceedings will be detailed in the following chapter.

CHAPTER XIX.

ANTARCTIC CRUISE—(CONTINUED).

PROCEEDINGS OF THE PORPOISE FROM THE TWENTY-SECOND TO THE THIRTIETH OF JANUARY—FRENCH SQUADRON SEEN—ITS COMMANDER REFUSES TO SPEAK THE PORPOISE—PROCEEDINGS UP TO THE THIRD OF FEBRUARY—GALE—FURTHER PROCEEDINGS TO THE TWELFTH OF FEBRUARY—SPECIMENS OF ROCK OBTAINED—WESTERN LIMIT OF HER CRUISE—RETURN TO THE EASTWARD—PORPOISE STANDS TO THE NORTHWARD—AUCKLAND ISLANDS—PORPOISE ARRIVES AT THE BAY OF ISLANDS—CRUISE OF THE FLYING-FISH—LANDING AT MACQUARIE'S ISLAND—PROCEEDINGS OF THE FLYING-FISH UP TO THE FOURTH OF FEBRUARY—STATE OF HER CREW—THEIR LETTER TO LIEUTENANT PINKNEY—HE RESOLVES TO RETURN—ARRIVAL OF THE FLYING-FISH AT THE BAY OF ISLANDS—EVENTS DURING THE RETURN OF THE VINCENNES—SHE FAILS TO REACH VAN DIEMEN'S LAND—ARRIVAL OF THE VINCENNES AT SYDNEY—PEACOCK FOUND THERE—RETURN OF THE PEACOCK FROM THE ICY BARRIER—SHE MAKES MACQUARIE'S ISLAND—SHE ARRIVES AT SYDNEY—STATE OF THE PEACOCK—HOSPITALITIES RECEIVED AT SYDNEY.

On the 22nd January, 1840, the Porpoise lost sight of the Peacock, and continued beating to the south-west. The weather was extremely cold; sea-water froze on being a few minutes in the bucket on deck. Some shrimps were caught. The water at 3 P.M. was much discoloured; got a cast of the lead with two hundred fathoms: no bottom; found the current south-by-east three-fourths of a mile per hour. At 4^h 30^m, passed large icebergs, one of which had several dark horizontal veins, apparently of earth, through it; large quantities of floe and drift-ice to the southward; the sea very smooth. A report of high land was made this morning; indeed every thing indicated the proximity of land. The number of seals, whales, penguins, shrimps, &c., had very much increased. The pure white pigeons were also seen in numbers.

23rd. Countless icebergs in sight; the sea quite smooth; not the slightest motion perceptible. At meridian, they were in latitude 66° 44' S., longitude 151° 24' E., and close to the barrier, which appeared quite impenetrable, as far as the eye could reach from aloft, to the north-north-west and north-north-east, with numberless immense ice-islands entangled and enclosed in it in all directions. The position they occupied seemed an inlet of elliptical shape, with an opening to the north. It was needless to count the many scattering islands of ice distinct from the vast chain; intermingled with field-ice, they studded the gulf like so many islands, of various shapes and dimensions. At 2^h 25^m, a sail was discovered on the lee bow; kept off to communicate, supposing it to be the Vincennes or Peacock. At 2^h 30^m, the Peacock was made out on the southern board, showing no disposition to communicate; showed our colours, and hauled to the westward.

24th. The day was remarkably fine, such as is seldom experienced in this region. The water appeared much discoloured and of a dirty olive-green colour. At meridian, they again made the field-ice, and tacked to the northward, passing through large quantities of ice-islands; weather looking bad, with occasional light snow-storms.

25th. Part of this day was clear and pleasant,

though snow fell at intervals; the field-ice was in sight several times, and many ice-islands of great size and beauty. Penguins were swimming round, and also several shoals of black-fish; a black albatross was shot; towards night the weather became very thick; they were in longitude 150° E., latitude 65° 56' S.

26th. Fresh winds blowing from the eastward; during the first few hours, a thick snow-storm; at 4 A.M. it cleared; at six o'clock made a sail; the strange sail fired a gun and made signal, when we bore down and spoke her; she proved to be the Vincennes; compared chronometers, and received rate; bore off to the westward under all sail; found the drift and floe-ice very thick, and were with great difficulty enabled to navigate through it; wind fresh, with a long swell from the south-west; at 5^h 30^m, the ice increasing in quantity, found it was necessary to haul off. Lost sight of the Vincennes; weather very threatening. The course during the day proved a very tortuous one; many penguins resting on the ice; their gait is an awkward kind of strut.

Received orders to-day by signal to meet the Vincennes along the icy barrier between the 20th and 28th of next month.

27th. This day proved clear and cold; wind from the south-west; ice forming rapidly on the vessel; at meridian, lost sight of the Vincennes; very many ice-islands in sight; latitude 65° 41' S., longitude 142° 31' E. On this day, Lieutenant-Commandant Ringgold determined with the fair wind to pass to the extreme limit of his orders, longitude 105° E.; being of opinion he would thereby save time, and be enabled more effectually to examine the barrier with what he thought would be found the prevailing wind, viz. that from the westward; in this, however, he was mistaken.

The 28th set in with a light breeze from east-north-east; made all sail; at 5 A.M., wind increasing rapidly, snow falling fast, and whether becoming thick; at six o'clock, made the floe and drift-ice; shortened sail, and hauled off to the north-west, it becoming so thick as to render any advance unsafe; until meridian, very strong winds from the

eastward, the brig under close-reefed topsails; at 2 P.M., found it difficult and hazardous to proceed, passing within a short distance of ice-islands, and just seeing them dimly through the obscurity; at three, the brig was hove-to, and Lieutenant-Commandant Ringgold says, in reference to their situation—

"I felt great anxiety to proceed, but the course was so perilous, the extent and trend of the barrier so uncertain, I could not reconcile it with prudence to advance. The frequent falling in with fields of drift-ice, the numerous and often closely-grouped chains of icebergs, were sufficient to point out discretion. The long-extended barrier was encountered in latitude $65^{\circ} 8' S.$; at twelve to-day our position was $65^{\circ} 16' S.$; it is easy to perceive the possibility of a trend northerly again, which would have placed us in a large and dangerous gulf, with a heavy gale blowing directly on, without a hope of escape.

"At 8 P.M., blowing very heavy; the snow falling rendered vision beyond a few yards impossible; I have seldom experienced a heavier blow, and towards the conclusion the squalls were severe and frequent."

The barometer at 3 A.M., stood at 28.200 in., the lowest point it reached during the gale. The temperature of the air was 26° .

The severe gale continued during the 29th, with a heavy sea, and snow falling thickly; at 8 A.M. the gale abated, and the clouds broke away; through the day the sun occasionally out; the weather appeared unsettled; the sun set red and fiery; the latitude was observed $64^{\circ} 46' S.$, longitude $137^{\circ} 16' E.$

On the 30th they stood again to the south-west; at 2 A.M. they made the barrier of field-ice, extending from south-east to west, when it became necessary to haul more to the north-west; the weather becoming thick with a heavy fall of snow, at four o'clock, the wind increasing, compelled them to shorten sail; at 7^h 30^m the ice in fields was discovered close aboard, heading west; at this time hauled immediately on a wind to the north-east, and soon passed out of sight of the ice and out of danger; during the day blowing a gale of wind, and very heavy sea running, passing occasional ice-islands; at meridian, being clear of the barrier, the brig was hove-to under storm-sails, to await the clearing of the weather. In the afternoon the weather showed signs of clearing; the sun coming out, again made sail to approach the barrier; no ice in sight; great numbers of black petrels about.

At 4 P.M. discovered a ship ahead, and shortly after another was made, both standing to the northward; the brig hauled up to the north-west, intending to cut them off and speak them, supposing them to be the Vincennes and the Peacock; shortly afterwards they were seen to be strangers, being smaller ships than our own; at 4^h 30^m the Porpoise hoisted her colours. Knowing that an English squadron under Captain Ross was expected in these seas, Lieutenant-Commandant Ringgold took them for his ships, and was, as he says, "preparing to cheer the discoverer of the North Magnetic Pole."

"At 4^h 50^m, being within a mile and a half, the strangers showed French colours: the leeward and sternmost displayed a broad pennant; concluded now that they must be the French discovery ships under Captain D'Urville, on a similar service with

ourselves: desirous of speaking and exchanging the usual and customary compliments incidental to naval life, I closed with the strangers, desiring to pass within hail under the flag-ship's stern. While gaining fast, and being within musket-shot, my intentions too evident to excite a doubt, so far from any reciprocity being evinced, I saw with surprise sail making by boarding the main tack on board the flag-ship. Without a moment's delay, I hauled down my colours and bore up on my course before the wind."

It is with regret that I mention the above transaction, and it cannot but excite the surprise of all that such a cold repulse should have come from a French commander, when the officers of that nation are usually so distinguished for their politeness and attention. It was with no small excitement I heard the report of it,—that the vessels of two friendly powers, alike engaged upon an arduous and hazardous service, in so remote a region, surrounded with every danger navigators could be liable to, should meet and pass without even the exchange of common civilities, and exhibit none of the kind feelings that the situation would naturally awaken:—how could the French commander know that the brig was not in distress or in want of assistance? By refusing to allow any communication with him, he not only committed a wanton violation of all proper feeling, but a breach of the courtesy due from one nation to another. It is difficult to imagine what could have prompted him to such a course.

At 6 P.M. the weather again was thick, with the wind south-easterly; field-ice again in sight; it commenced snowing, and the French ships were lost sight of. At 8 P.M. they passed in sight of large fields of ice and ice-islands; at 10^h 30^m, the snow falling so dense and the weather so thick, that it was impossible to see the brig's length in any direction; she was hove-to, to await a change of weather.

The beginning of the 31st the gale continued; at 7 A.M. moderating, they again made sail to the westward; in half an hour discovered a high barrier of ice to the northward, with ice-islands to the southward; at 10 A.M. they found themselves in a great inlet formed by vast fields of ice, which they had entered twelve hours previously; the only opening appearing to the eastward, they were compelled to retrace their steps, which they effected at 8 P.M., passing some ice-islands which they recognized as having been seen the evening before. They now found themselves out of this dangerous position, and passing the point, kept away to the westward. Lieutenant-Commandant Ringgold judged it prudent to heave-to during the night, on account of the darkness.

February 1st. The immense perpendicular barrier encountered yesterday was now in sight, trending as far as the eye could reach to the westward; it was of tabular form, from one hundred and fifty to one hundred and eighty feet in height, of solid compact ice, resembling a long line of coast; wind moderate from the south-east,—a brilliant blink extending along and elevated above the barrier. At 4 P.M. they arrived at the end of this barrier, and found it trending off to the southward, seeming as if numbers of icebergs had been broken from the barrier by some mighty force, exceeding in numbers any thing that had yet been seen, and extending as

far south as could be distinguished, interspersed with much drift and floe-ice. On the southern horizon sixty-four ice-islands were counted, exclusive of many near them, and those that were not distinguishable from the barrier.

The current was tried here, and found setting south-east, nearly a mile an hour. Pigeons around in numbers, also whales and large flocks of penguins.

The nights now evidently lengthened, thus adding to the cares and anxieties attendant on this navigation. It was fortunate that the prevailing winds were from the south-east and south-west, or coming off the ice. If they had blown from the northward, they would have been attended with danger, and might have proved fatal to the vessel.

2nd. At meridian, in longitude $130^{\circ} 36' E.$, and latitude $65^{\circ} 24' S.$ They were prevented from proceeding further to the southward by the impenetrable icy barrier. At this time they had one hundred large ice-islands in sight, without counting any of the smaller bergs, which were innumerable; saw great numbers of penguins and some seals (*phoca proboscida*). The current was tried here, and found setting as yesterday, and at the same rate.

At 8 p.m. were obliged to retrace their steps to the northward, the weather becoming thick, with light snow. At eleven, constant and thick snow-storm, and unable to see any distance; the gale continuing, lay-to under a close-reefed main-topsail.

3rd. A gale from south-east, heavy sea rising; occasionally passing ice-islands and field-ice. The gale continued throughout the day, but moderated towards midnight; the sea was heavy, the weather thick, and the brig completely covered with ice and snow. The barometer fell to 28.040 in. Temperature of the air 32° .

4th. Although the wind was moderate, yet it was so thick and foggy as to preclude bearing up. Towards meridian it cleared sufficiently for them to bear up and continue their examinations. To-day the current was found west-north-west, three-quarters of a mile per hour.

On the 5th they had a beautiful day,—no climate or region, Lieutenant-Commandant Ringgold remarks, could have produced a finer: this gave them an opportunity of thoroughly drying every thing and ventilating the vessel, which was much required; standing to the northward, in order to make a long board to the westward; the longitude $127^{\circ} 8' E.$, latitude $63^{\circ} 22' S.$; few ice-islands in sight, and those appeared much worn, showing marks of rapid decay, with isolated pieces,—some standing erect, while others were inclined, resembling fragments of columns and broken arches. This night there was a brilliant display of the *aurora australis*: at eleven o'clock there was perceived in the northern horizon a luminous arched cloud, at 15° of altitude, extending from north-west to north-east; the stars were partially obscured in the direction of the clouds; the pale flashes or coruscations vanishing very suddenly, were succeeded by spiral columns or streamers, converging with great velocity towards the zenith; brilliant flashes would again issue forth from the remote parts of the cloud, succeeded in quick succession by perpendicular rays

emanating from the cloud, having the shape of a rounded column or basaltic-shaped cylinder, which in contrast with the dark cloud showed in broad relief. As the cloud seemed to rise, the scene became a most interesting one, from the varied and oft-changing coruscations; finally the arc assumed a contracted and elliptical form, vivid streamers bursting forth as if from a corona, converging all towards the zenith, until they were lost in the coming day. The magnetic needle did not show any disturbance. The barometer stood stationary during its continuance. The sympiesometer indicated a slight fall. At the time there was no wind; the stars were brilliant, and all visible.

6th. During this day they had light winds; pursued their course to the westward; wind from the southward. In the afternoon they had light flurries of snow, and at times hail; the sea perfectly smooth, and few icebergs in sight. Longitude $125^{\circ} 32' E.$, latitude $63^{\circ} 34' S.$

During the 7th, the winds variable; at eight tacked to the southward, in order to close in with the barrier; the wind again hauling, tacked; the number of icebergs increasing; all those seen for the few days past have appeared variously shaped, much worn and fractured, some evidently overturned, and immense arches or caves washed in them; they were totally distinct from those seen to-day.

8th. A brisk breeze from the southward, which carried them on rapidly to the westward. At meridian, discovered compact fields of ice, with many stupendous ice-islands enclosed within it; the ice appeared more broken than any hitherto seen, with many fragments of icebergs resembling spires and broken columns. Altered their course to clear the barrier, and by two o'clock they had extricated themselves. Penguins, whales, brown pigeons, and the black albatross, were seen near the barrier. In the afternoon the snow fell in beautiful shining spiculæ, resembling stars, usually of six, but sometimes of twelve points: they varied from one-eighth to one-sixteenth of an inch in diameter.

The barrier was occasionally seen, and the ice-islands began again to assume a tabular form; towards the close of the day, very many whales, penguins, &c., seen. Longitude $116^{\circ} E.$, latitude $64^{\circ} 1' S.$

On the 9th, fresh breezes from the south-east; at 10 a.m. made the barrier again, the weather being favourable; at 4 p.m. standing along the barrier, through drift-ice, with countless icebergs in sight; good observations were obtained, placing them in longitude $112^{\circ} 41' E.$, and latitude $64^{\circ} 55' S.$ At 10 p.m., some few appearances of the *aurora australis* in the northern sky, light coruscations streaming upwards, but quite faint, and only for a very short period; many stars and several constellations were traced without difficulty. The sea was smooth; lowered a boat to try the current, but found none. The dip was $83^{\circ} 30'$.

On the morning of the 10th the weather cleared off, and gave them an opportunity of ventilating the vessel; closed in with the field-ice for the purpose of obtaining a supply of water, and the boats were despatched to take in ice; the longitude was found to be $110^{\circ} 34' E.$, latitude $65^{\circ} 12' S.$; the field-ice here was found to be interspersed with many large ice-islands and bergs. At five o'clock

the boats returned with ice. The current was found to be setting north-north-east, five fathoms an hour; the weather continued clear and healthful; made the field-ice ahead and on the lee bow; shortly after, cleared it. The twilight in the southern horizon presented a beautiful appearance, a bright salmon colour radiating from the sun, throwing its tints over the whole sky, tinging the few cirro-stratus clouds that were in the northern quarter, and giving a soft colour to the immense ice-islands that were slumbering along the barrier, and aiding to lend to the scene its peculiar character of silence, solitude, and desolation.

The weather was clear and pleasant on the 11th, with a light wind from the south-east; many penguins and whales were seen. The icebergs were numerous, and some of great beauty, with almost regularly-turned arches, and of the most beautiful aqua-marine tints. Longitude was $106^{\circ} 10'$ E., latitude $65^{\circ} 28'$ S.

During the morning of the 12th, running along high broken fields of ice, with a light breeze from the southward; weather overcast; discovered a large piece of ice of a dark brown colour floating by, resembling a piece of dead coral; lay-to, and sent a boat to bring it alongside; obtained from it several pieces of granite and red clay, which were frozen in; the ice was extremely hard and compact, composed of alternate layers of ice and snow; the strata of snow was filled with sand. The icebergs near at the time presented signs of having been detached from land, being discoloured by sand and mud. A number of white procellaria were obtained. The ice-islands again appeared in great numbers. At 3 p.m. hauled up, steering westerly into a very deep inlet or gulf, formed by extensive fields of ice. Believing from the indications of the morning that land could not be far off, in approaching the head of this inlet, several icebergs had the appearance of being in contact with the land, having assumed a dark colour from the clay and sand blown upon them; the whole group around seemed as if in the vicinity of land; sounded with two hundred fathoms; no bottom: also tried the current, but found none. Towards night, it becoming thick with snow, they continued under snug sail, intending to examine more closely the barrier and inlets in the morning.

13th. At 3 a.m. they again made sail to the westward, with wind from the east; at six o'clock they had snow-squalls, rendering it unsafe to proceed, and impossible to make any discovery. A few hours afterwards the weather cleared a little; made sail again to the north-west. At meridian overcast, with a stiff south-east breeze; at 1^h 30^m, approached to within pistol-shot of the barrier, observing much of the dark dirty ice interspersed with the field-ice; kept along it very closely, tracing the barrier northerly; observed a large black object on the ice; shortened sail, and despatched a boat: it proved to be a large mass of black, red, and mixed-coloured earth, resting upon a base of snow and ice, situated some fifty yards back from the margin of the field-ice, and was found to be red earth, mixed with granite and sandstone. Penguins were also procured alive. At 3 p.m. they again followed the trend of the ice in a north-westerly direction; a vast field, of uninterrupted extent, seemed moving along to the westward, the large icebergs containing dark and

discoloured masses, with frequent strata of the same description. They were still at a loss to account for these frequent signs of land; discoloured pieces of ice seemed mingled with the general mass; they were often seen along its margin, and appeared as though the icebergs had been turned over, presenting collections as if from the bottom. Great numbers of sperm whales were seen this day. At 8 p.m. they passed out northwardly with a light breeze and smooth sea, through an extensive chain of icebergs, which seemed grouped off the western point of the barrier: upwards of one hundred of them were counted, several of which were very much discoloured. The sunset was brilliant, bright crimson tints illuminating the icebergs, and producing a beautiful effect.

On the 14th, Lieutenant-Commandant Ringgold, having passed a few degrees beyond his instructions, that is, having reached longitude 100° E., and latitude $64^{\circ} 15'$ S., now commenced his return, in order to examine those places in the barrier which he had been prevented from doing on his way west.

15th. Continued their course to the eastward. Lieutenant-Commandant Ringgold frequently refers to the happy and cheerful condition of his crew, and their freedom from all disease.

On the 16th and 17th, they were employed in getting to the eastward, passing many worn and shattered bergs. On the evening of the latter day, they had another exhibition of the aurora australis, extending from north-north-west to east; it was of a light straw colour, but very indistinct; the luminous bank was at an elevation of 30° . The light in the north-west was most distinct, radiating from a nucleus above the horizon towards the zenith, where it formed a beautiful halo. It was not of long duration. Many ice-islands and bergs in sight; upwards of two hundred, nearly all of a tabular form,—the sides of many of them beautifully excavated by the waves, presenting innumerable Gothic arches, extending often to a considerable distance into the body of the ice.

Their position on the 18th was in longitude $114^{\circ} 17'$ E., latitude $62^{\circ} 37'$ S. Flocks of black birds were very numerous, but not near enough to be taken.

On the 19th and 20th, proceeding to the eastward. On the 20th, they had but few ice-islands in sight, although they were seventy miles further south than on the 18th, when the largest number ever seen by them at one time was visible; having reached the longitude of 120° E., they again steered south, to make the barrier. The current was tried, but none found.

The 21st proved stormy, with strong breezes from the south-east, and much snow and rain, which covered the brig with ice. Field-ice was seen ahead, when they again stood to the eastward, longitude being $121^{\circ} 30'$ E., latitude $65^{\circ} 15'$ S. On this night they experienced a heavy gale, during which the barometer fell to 27.50 in., where it remained during part of the 22nd. The squalls were very severe, accompanied with snow, sleet, hail, and heavy seas; they had now reached longitude 122° E., and latitude $64^{\circ} 9'$ S.

February 22nd, being Washington's birthday, the colours were hoisted, and the crew received an

extra allowance. Lieutenant-Commandant Ringgold took this occasion to express to them his satisfaction for the manner in which they had performed their duties during the present cruise, and that their conduct would be duly represented to the commander of the expedition, and the government.

On the 23rd the weather was again thick, with snow and mist.

On the 24th they had reached longitude 126° E., and latitude $64^{\circ} 29'$ S. On this day they again sighted the barrier; when, having completed what he deemed a full execution of his instructions, Lieutenant-Commandant Ringgold determined to put the brig's head north,—which was accordingly done.

Strong winds and gales continued for the next three days. On the 27th they again found themselves in east variation, in longitude 138° E., latitude $60^{\circ} 8'$ S. The white albatross had now again become common.

On the 29th, they had a beautiful display of the aurora australis; the whole southern hemisphere was covered with arches of a beautiful straw colour, from which streamers radiated, both upwards and downwards, of almost a lustrous white; numbers of concentric arches would occasionally show themselves, of a width of a few feet, uniting to form a complete canopy for a moment, and then vanish. The arches extended from east-south-east to west-north-west; the display continued for over two hours; the stars were seen above them. Previous to, and during its continuance, the thermometer indicated a change of four degrees, and the wind shifted to the southward.

On the 1st of March, in latitude 55° S., and longitude 140° E., they passed the last ice-island.

On the 2nd, great numbers of pyrosoma of large size were passed.

On the 4th, some faint appearances of the aurora australis were seen.

On the 5th, the Lord Auckland Isles were descried. Mr. Totten, who was officer of the deck, was accidentally knocked overboard by the trysail-boom, but was fortunately rescued without injury. Immense numbers of albatrosses were about. The aurora was again seen in the southern hemisphere.

On the 7th they anchored in the harbour of Sarah's Bosom, in twelve fathoms water. During their brief stay here, all were actively employed wooding and watering, for which this harbour affords a fine opportunity. Assistant-Surgeon Holmes made several excursions on the largest island, of which he gives the following account:

"I found it very thickly covered with trees, in its less elevated parts; as few of them were of any size, I found no small difficulty in penetrating and making my way through them; in many places it was absolutely impossible. It was only after a long and fatiguing walk that I succeeded in reaching the summit of that part of the island, near which the brig was anchored, where I found the trees less numerous. A thick growth of underwood and dwarf bushes, intermixed with ferns, concealed the surface, rendering it difficult to walk. Even on the places apparently most level, the ground was very unequal, and a single step would sometimes send me nearly up to the neck into a hollow filled with large fern fronds. On the highest parts, the small level spots were covered only with moss, and

a description of tall grass, and in places also a kind of grain grew abundantly. The ground was dry every where, all the water being found in the streams, which were numerous and pure. Near the summit, the ground was perforated in all directions, probably by birds, who rear their young in these holes. Many of the birds, principally procellaria, were sitting on the ground: they made no effort to escape, but suffered themselves to be taken without any attempt at resistance.

"The forest was full of small birds, of three or four different species, which were perfectly fearless; one little fellow alighted on my cap as I was sitting under a tree, and sang long and melodiously; another and still smaller species, of a black colour spotted with yellow, was numerous, and sang very sweetly; its notes were varied, but approximated more nearly to the song of our blackbird; occasionally a note or two resembled the larks. Hawks too were numerous, and might be seen on almost all the dead trees, in pairs. Along the sea-coast were to be seen the marks of their ravages upon the smaller birds. The sea-birds were very numerous on the opposite side of the island, sitting upon the cliffs or hovering over the islet."

On the western side of the Auckland Island, the under-brush and young trees are exceedingly thick. Dr. Holmes remarks, that it was impossible to penetrate; that he was occupied fully an hour in making his way for a hundred yards, where to all appearance a human step had never before trodden. There was not a vestige of a track; old trees were strewn about irregularly, sometimes kept erect by the pressure on all sides. Some trees were seen upwards of seventy feet in height, although the generality were only from fifteen to twenty; every part of the island was densely covered with vegetation; the soil, from the decomposition of vegetable matter, had acquired considerable richness; specimens of all the plants were collected.

These islands have in many places the appearance of having been raised directly from the sea; the cliffs consisted of basalt, and were generally from fifty to ninety feet perpendicular.

The Auckland Islands are the resort of whalers, for the purpose of refitting and awaiting the whaling season, which occurs here in the months of April and May. Near the watering-place a commodious hut has been erected by a French whaler. Near by was another in ruins, and close to it the grave of a French sailor, whose name was inscribed on a wooden cross erected over it. Some attempts at forming a garden were observed at one of the points of Sarah's Bosom, and turnips, cabbage, and potatoes were growing finely, which, if left undisturbed, will soon cover this portion of the island; to these a few onions were added. Besides the birds, the only living creature seen by Dr. Holmes was a small mouse: it made no attempt to get out of his way, and seemed to have no fear when taken; being consigned to a pocket, he soon contrived to escape. Many of the smaller islands of this group were visited; they closely resemble the larger one. Penguins were numerous and of a variety of colours.

These isles have a picturesque, wild, steep, and basaltic appearance: the highest peak was estimated to be eight hundred feet; the smaller has a less elevation: the general aspect of the land resembles the region around Cape Horn. The harbour of

Sarah's Bosom is not the most secure; that of Lawrie's is protected from all winds, and has a large and fine streamlet of water at its head. The rocks are covered with limpets, and small fish of many varieties are caught in quantities among the kelp. The crew enjoyed themselves on chowders and fries. No geese were seen, and the only game observed were a few gray ducks, snipes, cormorants, and the common shag. The land birds are excellent eating, especially the hawks; and on the whole, it is a very desirable place at which to refit.

On the 9th of March they had finished, and were prepared for sea, but the whether was threatening and caused them to delay. The magnetic dip was found to be $73^{\circ} 47' 30''$ S.

A whaler, under Portuguese colours, but commanded by an Englishman, arrived, and anchored in Lawrie's Cove, to await the coming of the whales! The night proved stormy; the wind at $10^h 30^m$ from the north-east, blowing very heavy in puffs. Towards noon it moderated, and at 2 P.M. they got under way, with a light breeze from the north-west, and stood to sea.

The latitude of Sarah's Bosom is $50^{\circ} 38'$ S.; the longitude $165^{\circ} 28'$ E.

On the 12th no current was found; latitude $49^{\circ} 27'$ S., longitude $168^{\circ} 13'$ E. The weather experienced from this port to New Zealand was very similar to that in passing from Cape Horn to Valparaiso: northerly winds with mist and fog prevailing, with a heavy sea. On the 17th they fell in with the whale-ship Mary and Martha, of Plymouth, Coffin, master, who informed them that there were at least one hundred whale-ships cruising in the neighbouring seas; of these, several were seen. This will give some idea of the number of vessels employed, and how great a capital is engaged in this business.

On the 18th they had a gale from north-north-west, which lasted through the day, moderating at sunset. They were in latitude $43^{\circ} 2'$ S., longitude by chronometer, $175^{\circ} 24'$ E. The barometer sank to 29.30 in. A current was experienced setting north-west, in the direction of Cook's Straits.

On the 20th, in latitude 41° S., longitude 177° E., the current was found setting north-east-by-north, half a mile per hour. On the 22nd and 23rd they experienced a heavy gale from the south-east, when they were in longitude $179^{\circ} 35'$ E., and latitude $37^{\circ} 52'$ S.; during the morning of the latter day the wind hauled to the south-south-west; the barometer, at 3 A.M., stood at 29.10 in.; the weather cleared, with the wind at south-west.

On the 26th, they reached and anchored in the river Kawa-Kawa, in the Bay of Islands, off the American consul's, about three miles above its mouth. Many vessels were passed lying at anchor off the town of Kororarika. Here they found the tender Flying-Fish; all well.

The cruise of the latter will now be taken up from the 1st of January, on which day she parted company with the Vincennes, in consequence of having carried away a gaff, and being obliged to shorten sail, in doing which their jib-stay got adrift, and carried away the squaresail-yard before it could be secured. The vessel was in the mean time exposed to a heavy sea beating over her, and at midnight they were compelled to

heave-to. They then steered for the first rendezvous, Macquarie Island, where they arrived on the 10th, in the afternoon, and saw the Peacock, but it becoming thick, they were not seen by that ship.

On the 11th, Acting-Master Sinclair landed for the purpose of placing a signal on the island, agreeably to instructions. The landing was found difficult and dangerous, and their description of the island agrees with that heretofore given of it from the notes of Mr. Eld, as being dreary and inhospitable. Large numbers of penguins, and small green and yellow paroquets were seen. Near where they landed, they saw about twenty huge sea-elephants basking on the rocks, which did not seem to heed them; when disturbed, they would only throw their carcasses over, open their mouths, utter a loud growl, and go to sleep again; no measurement was taken of them, and one which was killed could not be taken in the boat. The soil was soft and spongy, yielding to the pressure of the feet. The staff and signal being planted, they returned on board, and now passed the serf without difficulty.

On the 12th, they put away for the next rendezvous, Emerald Isle. They reached its position on the 14th, but nothing was seen of it; the weather was thick.

On the 16th, they kept off to the southward, with the wind from the south-west, accompanied with sleet and snow. In latitude 61° S., longitude 164° E., they saw the first ice. The next day, the 19th of January, the water was very much discoloured; got a cast of the lead in ninety fathoms; no bottom; passed a number of icebergs that were all flat on the top, with perpendicular sides.

On the 21st they made the icy barrier, in longitude $159^{\circ} 36'$ E., and latitude $65^{\circ} 20'$ S. From the number of icebergs and the frequency of snowsqualls, they found great danger in running through them, although the water was quite smooth.

On the 22nd the weather proved pleasant, and they followed the trend of the ice. The ice-islands still showed flat tops and perpendicular sides, and there were a number of birds, seals, and whales around them; they were at noon in longitude $158^{\circ} 27'$ E. On this day they were close by an iceberg, from the main body of which a large mass fell with a noise like thunder; the snow flying into the air resembled smoke, and the swell produced by the immersion of the fragment caused the schooner to roll water in on her deck. A number of large penguins were in sight, differing from any they had heretofore seen.

On the 23rd the weather was pleasant, and they had light winds from the southward and westward. Longitude $157^{\circ} 49'$ E., latitude $65^{\circ} 58'$ S. They continued coasting along the ice in search of an opening. At 8 P.M. they discovered several dark spots, which had the appearance of rocks, and on approaching the margin of the ice, they could make them out to be such with their glasses, but they were situated too far within the field-ice for a boat to get near them. This day being fine, an opportunity was afforded of drying the deck and clothes, and searing the seams with a hot iron. The vessel had been very wet, and her decks leaked badly, notwithstanding the thorough calking and repairs she had received at Sydney: the crew were almost constantly wet, below as well as above deck.

On the 24th they were obliged to steer again to

the northward, in consequence of making the barrier ahead. Sea-lions were seen on the ice. They continued to follow the barrier, which trended north-north-east; the compasses were very sluggish. On the 26th and 27th the weather became bad, with the wind to the northward and westward, accompanied by a heavy fall of snow: in the evening of the latter day, the wind hauled to the southward and westward, and brought clear weather. The 28th passed with clear weather, and several seals were about them.

The 29th was thick and snowy, with a north-east wind; passed through quantities of drift-ice, and by 2^h 30^m it had become so thick as to render a continuance of their course perilous; at 7 P.M. they again made the solid barrier, when it was blowing a stiff gale; at 9^h 30^m discovered the ice ahead, and on both beams; wore round to the northward and eastward, to retrace their steps; it was not long before they discovered a chain of ice-islands ahead, apparently connected by solid ice; about midnight a passage was discovered between two icebergs, through which they passed. It was now blowing a heavy gale, and having gained the open sea, they attempted to reef the foresail, but were unequal to the task (four of the men being on the sick-list), and were compelled to lay-to under the whole sail, which caused the vessel to labour very much, as well as to leak a great deal, and endangered her safety by making her fly into the wind, and get a sternboard in a high sea.

On the 30th, in the morning, the gale abated, and the weather became more pleasant than they had experienced for a number of days. They had reached the longitude of 150° 16' E., latitude 65° 15' S. On this day they again passed into blue water.

31st January was thick with snow; a north wind and heavy sea.

1st of February, they were running among ice, until they sighted the barrier, when they again hauled to the northward; a moderate gale blowing, with thick weather and a heavy sea, they were obliged to heave-to.

On the 2nd and 3rd, they were coasting the ice. In the afternoon of the 3rd they again had bad weather, which made it necessary to bring to; surrounded by bergs and drift-ice; the latter, in case of striking, would have seriously injured the tender. The icebergs seen on these days, had the appearance of recent formation; the tops flat, the sides perpendicular, and not worn by the action of the sea.

On the 4th, the gale continued, and the sea had risen to an extraordinary height; the weather was so thick that an iceberg could not be seen further than twice the length of the vessel. The tender was under too much sail, which caused her to labour dreadfully, in consequence of which she leaked in such a manner as to make it necessary to keep the pumps going almost continually. When they were stopped for a short time to rest the men, the water increased so as to reach the cabin-floor: the water came through the seams forward in such quantities as to wet every bed and article of clothing on the berth-deck. This was a great addition to the labour and discomfort of the crew, now reduced by sickness to four men, and the strength of these much impaired by previous sickness, excessive labour, and almost constant ex-

posure. To relieve their situation as much as possible, Lieutenant Pinkney ordered them to make use of the cabin in common with the officers. To ease the pitching of the vessel, a quantity of coal was shifted aft; but although this was a partial relief, yet as she had too much sail on her, which they had been unable to reduce at the commencement of the gale, it was not sufficient to make her easy.

On the 5th, the gale began to abate, when the crew, through one of their number, presented a communication to Lieutenant Pinkney, of which the following is a copy.

(COPY.)

We, the undersigned, the crew of the schooner Flying-Fish, wish to let you know that we are in a most deplorable condition: the bed-clothes are all wet; we have no place to lie down in; we have not had a dry stitch of clothes for seven days; four of our number are very sick; and we, the few remaining number, can hold out no longer; we hope you will take it into consideration, and relieve us from what must terminate in our death.

(Signed) A. MURRAY. THOMAS DARLING.
JOHN ANDERSON. JAMES DANIELS.
F. BEALE. JOSEPH.
JAMES DARLING. JOHN H. WEAVER.

To LIEUTENANT PINKNEY,
U. S. Schooner Flying-Fish.

On the receipt of this appeal, Lieutenant Pinkney addressed an order to the officers, a copy of which follows.

U. S. Schooner Flying-Fish,
Lat. 66° S., long. 143° E., Feb. 5th, 1840.

GENTLEMEN,—You will furnish me with your opinion, and the reasons which induced that opinion, of the propriety of any longer endeavouring to accomplish that part of the accompanying order, which refers to penetrating to the south.

I am, respectfully, &c.

R. F. PINKNEY,
Lieutenant-Commandant.

To ACTING MASTER GEORGE T. SINCLAIR.
PASSED MIDSHIPMAN WILLIAM MAY.
PASSED MIDSHIPMAN GEORGE W. HARRISON.

(COPY OF REPLY.)

U. S. Schooner Flying-Fish,
Lat. 66° S., long. 143° E., Feb. 5th, 1840.

SIR,—Agreeably to your order of this date, we, the undersigned officers, have to express our most thorough conviction, that the condition of this vessel's crew, and the vessel, loudly demand an immediate return to milder latitudes.

The causes of this opinion are these: that the crew of this vessel, consisting of fifteen persons (four officers and eleven men), even if well, are entirely inadequate to her safe management; but five are now confined to sick beds (one a servant), one of them is in a very critical state of health, and three others dragging out upon duty, complaining, and under medical treatment. Out of four, nominally performing duty, one of them, the cook, is totally unfit to a turn at the helm, and another cannot be trusted without the closest watching; indeed, so deficient in force are we, that in the gale of yesterday and the day before, and on a previous occasion, when it became extremely

necessary to reef the foresail, the men were so deficient in physical strength as to make it impossible to accomplish it.

The crew's apartment is in the most deplorable state, leaking like a sieve, all their beds being wet, their clothes on them being so, even to their under flannels, for *one week*, and without a dry change on hand, and no prospect of having one; so miserable is their situation, that at length you have been compelled to allot them the cabin, in common with us, for the purpose of cooking, eating, and sleeping.

Furthermore, sir, in the gale now abating, we find that nearly constant application to the pump is barely sufficient to keep the water from flooding the cabin-floor, evidently having started a leak; notwithstanding this, the condition of the crew is more imperative, much more so in this, our recommendation, for a return to the northward; in fact, we would cheerfully continue to the southward, if we had a proper crew.

Lastly, understanding that the crew, through one of their body, have waited upon you, and, by written application, also stated their inability to live through these hardships much longer, and begging your return.

We are respectfully, your obedient servants,

(Signed) GEORGE T. SINCLAIR,
Acting Master.

WILLIAM MAY,
GEORGE W. HARRISON,
Passed Midshipmen.

LIEUT.-COM. R. F. PINKNEY,
Commanding U. S. Schooner Flying-Fish.

Lieutenant Pinkney, in accordance with this opinion, and his own conviction of the necessity of an immediate return to milder latitudes, as the only means of restoring the sick, and preserving those on duty, who were then incapable of managing the vessel without the assistance of the officers, deemed it his duty to steer for the north, which he accordingly did.

The 6th and 7th continued thick, with occasional squalls. On the 8th, the weather again broke up, when they had several hours of sunshine, which proved of great benefit to the sick. Lieutenant Pinkney was enabled to come again on deck, who had scarcely been able to quit his berth since leaving Macquarie Island, from sickness. They had reached the longitude of $139^{\circ} 45' E.$, latitude $61^{\circ} S.$ At 11 P.M. the aurora was seen; it was first visible in the south-east quarter, in spots resembling pale moonlight, extending to the zenith, from whence it diverged in rays, some of which reached the horizon, but the greatest number terminated at an altitude of twenty-five or thirty degrees. On the 9th, the aurora was also seen in the west, in vertical rays of pale yellow light, commencing about five degrees above the horizon, and extending to an altitude of thirty degrees. After a short time it disappeared, and was again seen in the zenith, radiating in lines to the north-east and west, reaching to within ten degrees of the horizon. The wind was from the southward. Temperature 34° . The following five days they had thick weather, and nothing occurred until the evening of the 14th, when they again had a display of the aurora; the convulsions were frequent and brilliant, but did not exhibit any different form, until after mid-

night, when it appeared in arches, reaching nearly to the horizon, at from 45° to 73° of altitude, and composed of short perpendicular lines, blending at one moment into a sheet of misty light, and then breaking out into brighter lines, some of which were broad. It then again shifted to the zenith, with radiations extending in every direction, in straight and wavy lines. The changes were incessant, but not shooting.

On the morning of the 15th, they again had a display of the aurora. It first appeared in the southern heavens, at an altitude of 45° , flashing to the zenith, where it disappeared. After midnight it was again visible in the southern quarter, at about 30° of altitude. It finally centered in a bright spot, which changed into a crescent, with the rounded side to the northward. From this, feathery-edged rays of pale orange colour branched off in every direction, over which the prismatic colours seemed to flit in rapid succession. The rays would sometimes fold into one another like a fan, and reach the horizon in one direction, while in another they were drawn up to the zenith, again to burst forth in repetitions, until lost in daylight. On the 19th, the aurora again appeared in an arch of 15° altitude.

They passed the last icebergs in latitude $55^{\circ} 30' S.$, longitude $145^{\circ} 30' E.$

On the 22nd they spoke a French whaler from Hobart Town, who expressed much surprise at finding so small a vessel in such high latitudes. The captain sent a boat on board, and invited them to "soup" with him.

On the 23rd they made the southern island of New Zealand. On the 1st of March they experienced a most violent gale. The wind about noon on the 29th of February hauled to the southward and eastward, and by midnight it blew a gale, hauling to the eastward, until about 8 P.M., when its violence moderated. Their latitude was $40^{\circ} S.$, longitude $178^{\circ} 30' E.$ For several days previous to this, a noise was heard about the heel of the main-mast; an examination was had, and the conclusion arrived at that it worked in the step, the wedges in the partners having been driven without obviating it. On the 9th of March they arrived at the Bay of Islands, where they found the gentlemen who had gone there to pursue their researches in natural history waiting our arrival.

The Vincennes was left on the 21st of February on her way north. On the night of the 22nd, we had a beautiful and novel appearance of the aurora australis.

Black clouds were passing rapidly over the sky; an orange glow of light seemed to cover the heavens, emanating from a point, over which flitted rays of the prismatic colours, directed towards the horizon, lighting up both edges of the clouds, and throwing them into bold relief. The rays seemed to dart simultaneously towards the horizon, on reaching which they would seem to be gathered, as if by magic, towards the centre, and slowly vanish, to reappear again and fold up.

Strong gales from the west-north-west with snow-squalls continued until the 27th, with thick misty weather. Numerous ice-islands were passed during this interval. The last iceberg seen, was in the latitude of $53^{\circ} S.$, and longitude $120^{\circ} 25' E.$, the temperature of the water was 46° .

On the 28th, we found our variation 1° easterly, in the longitude of $131^{\circ} 50' E.$, latitude $50^{\circ} 30' S.$; and in attempting to get a deep-sea sounding of eight hundred and fifty fathoms, we lost our Six's thermometer by the wire parting. The sea was a deep blue; the temperature 45° . We found a current setting west-north-west three-fourths of a knot per hour. The white object was seen at the depth of fifteen fathoms.

On the 1st of March we had reached the latitude of the Royal Company's Isles, and I continued to run in nearly the same parallel for eight degrees of longitude, without seeing any signs of the supposed land. Having sailed far to the eastward of their supposed position, I again hauled to the northward to proceed to Hobart Town, Van Diemen's Land, to fill up our water. We now saw a sail, the first during sixty days, which made us feel as if we were returning to a habitable part of the globe. This night we had a brilliant display of the aurora australis, resembling that seen on the 9th of February, with this difference, that it was seen to the southward, extending from east-south-east to west-south-west.

On the 5th of March the wind headed us off our course to Hobart Town; I then determined to proceed direct to Sydney, and thus be enabled to communicate as speedily as possible with the United States. The consideration of getting intelligence respecting the other vessels, also led to this determination. I felt, in truth, forebodings that all was not well, from not having met any of the vessels at the appointed rendezvous, along the icy barrier; and I was anxious for their safety, after the severe gale of the 28th of January.

Having reached a lower latitude, the weather had now become pleasant, and we could dispense with our winter clothing,—a relief which the whole of the crew seemed to enjoy. It was the reverse with me; I had a feeling of exhaustion and lassitude that I could not account for, and the least exertion caused me much fatigue.

On the 9th we reached the latitude of Cape Howe, and were seventy miles to the eastward of it. We there experienced a rise in the temperature of the water: six degrees in less than an hour.

On the 10th, when off Cape Jervis, and about forty miles to the eastward of it, we again changed the temperature from 68° to 73° , as we steered in for the land to the northward, but on hauling to the eastward it again fell to 68° . A strong southerly current has been long known to exist along this coast; and I feel well satisfied that the thermometer is a good guide in making the passage from the southward. The coasting vessels, as I was informed at Sydney, had frequently made long passages from Van Diemen's Land and South Australia, which I have but little doubt is owing to the prevalence of this minor Gulf Stream, the position of which the use of the thermometer will clearly indicate. This current will be noticed particularly in the chapter on currents; its width no doubt varies with the season.

On the 11th of March, at noon, we passed the Heads of Port Jackson, and took a pilot. We were, as a body, in better condition than when we left Sydney three months before.

In an hour afterwards we dropped our anchor in Farm Cove, off Fort Macquarie. Our reception was flattering; scarcely was our anchor well down

before many of our friends came on board to bid us welcome; and we felt tenfold that kind hospitality which on our former visit we had first become acquainted with. They appeared to rejoice in our success as if we had been their countrymen.

During our absence from Sydney, many improvements had taken place. The storehouses for the deposit of grain on an island in the harbour were in rapid progress; the new government-house nearly completed, and the foundation of an exchange laid; besides this, many improvements in town that were then in progress had been completed; and the rapidity with which these works had been accomplished, strongly reminded me of similar operations at home.

The country was looking quite green and pretty; indeed, the sail up the noble harbour was truly beautiful; it wore quite a different face from its former parched appearance, the rains having been abundant during our absence.

Observations were obtained for the rates of our chronometers, and the magnetic needles again experimented with.

On overhauling my ship, the fore-topmast was found to be slightly sprung.

It was with great pleasure I learned the safety of the Peacock; for that vessel had occupied my thoughts more than the others, on account of the condition in which she left Sydney. All on board of her were well, and the vessel was undergoing repairs in Mossman's Cove, one of the many which this harbour forms. These coves may be termed wet-docks, affording as they do every facility for the repair of vessels of any size. They are more like artificial than natural basins, and are secure against any wind. There is no port in the world that offers so many natural advantages as Port Jackson, for a great naval power. We had many things to relate to each other; among others, the particulars of the accident that befell the Peacock, that has already been noticed. The return of that vessel to this port now claims our attention.

On the 28th of January, their sick-list had increased to thirteen, more in consequence of the fatigue the men had undergone, than from any disease.

On the 29th, they experienced strong gales from the north-west, which continued to increase until midnight, after which the weather moderated. The ship during this gale was in latitude $61^{\circ} 20' S.$, and longitude $154^{\circ} 9' E.$ This gale is remarkable, in consequence of its blowing in a contrary direction to that which the Vincennes experienced on the same day; while the former had it from the north-west, the latter had it from south-east. Their distance apart was four hundred and fifty miles, in a north-east direction.

On the 1st of February the weather was stormy until towards evening, when it moderated and cleared off, with the wind to the north-west, and gave them a view of the aurora australis lighting up the southern portion of the horizon. Rays were thrown out in different directions, some reaching an altitude of 30° , others of 40° , whilst others again almost spanned the heavens.

On the 2nd, they had another display of the aurora, but contrary to that of the previous day, it was first seen at an altitude of 70° , diverging towards the horizon, from east-south-east to the south-west-by-west, before it disappeared. The

point from which the rays diverged reached the zenith.

On the 4th they made Macquarie Island, and shortly after passing it, experienced another gale from north-west to south-west, which caused them much anxiety for their rudder, which thus far had answered well, although great attention was necessary to prevent strain upon it. Strong gales yet continued. On the 5th, they had a faint display of the aurora.

On the 7th of February, the weather had become less boisterous, and having reached latitude 49° S., longitude $155^{\circ} 23'$ E., the aurora australis again appeared. It was first seen in the north, and gradually spread its coruscations over the whole heavens; the rays and beams of light radiating from nearly all points of the horizon to the zenith, where their distinctive outlines were lost in a bright glow of light, which was encircled by successive flashes, resembling those of heat lightning on a sultry summer night; these formed a luminous arc in the southern sky, about 20° in altitude, from the upper part of which, rays were continually flashing towards the zenith; light showers of rain finally shut it out from view. On the same night, between one and three, the aurora burst out from the south-western horizon, streaming up and concentrating in the zenith, and attended with quick flashes of every variety of tint. The wind was moderate from the south-west, and a squall of hail passed at the time. In latitude 47° S. they first encountered phosphorescence in the water. On the 17th they made the land of New South Wales, and continued to experience a variety of weather until the 21st, when they arrived off, and anchored within, the Heads of Port Jackson.

The next day they proceeded up the harbour, and anchored off Sydney Cove. The ship was much shattered, but her officers and crew all in good health. Here they were kindly received, and no time was lost in proceeding to make the necessary repairs. The collector was kind enough to give them permission to land every thing that might be necessary, when and where they pleased. The powder and fireworks were received into the public magazine, and when called for were politely sent in a government boat, free of expense. The railway for merchant-vessels was found too light to trust the Peacock upon it; Mossman's Cove, on the north shore, was then resorted to, not only as a

convenient place for making the necessary repairs, but as affording more security for the crew against the crimps and rum-shops.

The day after my arrival, I visited the Peacock, in order to examine into her condition, and could not withhold my astonishment that she had been able, after undergoing such damage, to reach a distant port. The visible injuries have already been stated, in speaking of her accident. On their arrival at Sydney, it was found that her stem had been chafed to within one and a half inches of her wood ends, and much strained throughout. After a full examination of the circumstances, I feel it a duty I owe to Captain Hudson, as well as to his officers and crew, to state that I am well satisfied, that his coolness, decision, and seamanship, with the good conduct of his officers and men in the perilous situation in which they were placed, are worthy of the highest encomiums. The preservation of the ship and crew, and her subsequent navigation to a distant port, reflect the highest credit upon her commander and upon the service to which he belongs.

Sydney was now much crowded with people, and several balls were given, to which we had the honour of an invitation. That of the St. Patrick Society was attended by the chief people in the neighbourhood of Sydney, including the governor and most of the officers of the crown. It was given in the new court-house, and was a handsome and well-conducted entertainment. Two military bands were in attendance; quadrilles and country dances followed each other in rapid succession; rooms were provided for cards, refreshments, teas, lemonade, &c.; and towards the close of the evening, the company was ushered in to an elegant supper, which was partaken of standing.

I was struck with the beauty and general appearance of the ladies, though I was informed that many of the belles were absent. The style of the party was neither English nor American, but something between the two. I scarcely need remark that we were all much gratified and pleased. The hospitality and kindness shown us were of that kind that made us feel truly welcome.

Our last week at Sydney was spent in a round of pleasure, and the attention we met with being entirely unexpected, was doubly gratifying to us.

CHAPTER XX.

NEW ZEALAND.

DEPARTURE FROM SYDNEY—PASSAGE TO NEW ZEALAND—ARRIVAL AT THE BAY OF ISLANDS—MEETING WITH THE SCIENTIFIC CORPS—THEIR PASSAGE FROM SYDNEY—BAY OF ISLANDS—RIVERS WHICH FALL INTO IT—FACE OF THE COUNTRY—ACTIVE VOLCANO—HOT SPRING OF TAIAMI—CRATER OF POERUA—DR. PICKERING'S VISIT TO HOKIANGA—MISSIONARY ESTABLISHMENT AT PAHIA—KORORARIKA—ENGLISH POLICE MAGISTRATE AND ACTING GOVERNOR—TREATY OF CESSION TO ENGLAND—CONDUCT OF THE AMERICAN CONSUL—INSTALLATION OF THE LIEUTENANT-GOVERNOR—OPINION OF THE CHIEFS IN RELATION TO THE TREATY—ARRIVAL OF ENGLISH REVENUE OFFICERS—LAND CLAIMS—BURTHENSOME TAXES AND TARIFF—THEIR EFFECT ON AMERICAN COMMERCE—EXPENSE OF THE NEW GOVERNMENT—CASE OF JOHN SAC—HIS LETTER TO MR. WALDRON—FURTHER REMARKS ON THE TREATY OF CESSION—VIOLENT GALE—ITS EXTENT AND ROTARY CHARACTER—FOREIGN RESIDENTS—HIGH PRICE OF LAND—MISSIONS—TABOO—PAS, OR FORTIFIED TOWNS—DWELLINGS—TOMB—DRESS OF THE NATIVES—THEIR STOREHOUSES—THEIR FOOD—THEIR ARMS AND ORNAMENTS—KING POMARE—MAUPARAWA—CHARLEY POMARE—POMARE'S WARS—CEREMONY OF HIS RETURN—HIS MEANNESS—POPULATION OF NEW ZEALAND—VISIT TO WANGARARA—POLITENESS OF KO-TOWATOWA—WANGARARA BAY—CHARACTER OF THE NEW ZEALANDERS—THEIR PERSONAL APPEARANCE—TRADITION IN RELATION TO THEIR ORIGIN—TATTOOED HEADS—CANNIBALISM—CONDITION AND PROSPECTS OF THE NATIVES—NATIVE DANCES—MUSIC—CHATHAM ISLAND—CHART OF THE BAY OF ISLANDS—MR. COUTHOU'S PASSAGE FROM SYDNEY—HIS ACCOUNT OF MOUNT EGMONT—OF PORT COOPER—WARS OF ROBOLUA—PORT LEVY—KORAKIHARURU—PIGEON BAY—CAPE CAMPBELL AND SNOWY PEAKS—CLOUDY BAY—ROBOLUA—HABITS OF THE NATIVES, AND PREVAILING WINDS AT CLOUDY BAY—CLIMATE OF NEW ZEALAND—DISEASES—SOIL—CULTIVATION—VEGETABLE PRODUCTIONS—TIMBER—CANOES—QUADRUPEDS—BIRDS—COMMERCE.

HAVING replenished our stores of provisions, we took, with much regret, a final leave of our friends at Sydney. The Vincennes weighed anchor, and at 3 p.m. on the 19th March we discharged our pilot, and bade adieu to these hospitable shores. The Peacock, not having completed her repairs, was left at Sydney for a few days, with orders to follow us to Tongataboo.

On reaching a distance of thirty miles from the coast, we again found a difference of three degrees in the temperature of the water, and experienced the effects of a strong current towards the south. The wind was from the northward and eastward.

On the 23rd we spoke the French whale-ship *Ville de Bordeaux*, in want of provisions, which we supplied her. She had been out three years, and had on board four thousand barrels of oil. The crew was reduced to bread and water, and the vessel was apparently in a bad condition in other respects.

At daylight on the 30th, we made Cape Brett, and after groping our way through the dark, into the Bay of Islands, anchored at 10 p.m. in the Kawa-Kawa river, opposite the residence of Mr. Clendon, the American consul. Here I had the satisfaction to find the Porpoise and Flying-Fish, and received the reports of their cruises; they were all well on board. The former vessel had arrived a few days, and the latter about three weeks, before us. We were also gratified with the receipt of letters from the United States. Every exertion was made to shorten the duration of our stay in New Zealand, and the necessary instruments were landed without delay.

Here also we met all the scientific gentlemen, —who, as has been stated, had been left at Sydney when the squadron sailed upon the antarctic cruise, —anxiously awaiting our arrival.

They had been forced to remain inactive at Sydney, in consequence of a change in the destination of the vessel in which they had first taken their passages, and by this vexatious delay, had not only been prevented from pursuing further researches in New South Wales, but had lost time that might have been advantageously employed in New Zealand. They finally succeeded in finding an opportunity of reaching the Bay of Islands, in the British brig *Victoria*.

After leaving Sydney in this vessel, a sea was shipped, which, besides doing other mischief, entered at the cabin-windows, and filled the chronometer-box with salt water; in consequence of which the master considered it necessary to put back, in order to exchange the injured time-piece for another. She accordingly anchored again in Port Jackson.

On the 7th February, they had a beautiful exhibition of the aurora australis: the coruscations were of a straw-coloured light, reaching nearly to the zenith in the southern sky, and lasting from seven until ten o'clock. A noddly lighted on the brig, and remained on board many days; so tame was it that it even suffered itself to be handled.

On the 16th, when they had performed about half the passage, they had another exhibition of the aurora, much like the former; after which they experienced a gale of wind of five days' duration. On the 21st, they were enabled again to make sail, and, on the 23rd, they made the North Cape. A gale then came on from the eastward, and they had a narrow escape from shipwreck while running down the land. On the 24th, they dropped anchor at Kororarikia, about three miles above which place they found the United States consul, Mr. Clendon, at Ornotu Point.

From the splendid panorama of Mr. Burford, I had pictured the Bay of Islands to myself as a place

of surpassing beauty, and I could not but feel gratified at the idea of paying it a visit: it did not, however, realize my expectations. It might, with more propriety, be called the Bay of Inlets. The best idea that can be given of its geographical features is, to liken it to an open hand with the fingers spread apart. The land is much indented with bays, or arms of the sea, running up among hills, which are nearly insulated. The distance between the two capes (Brett and Point Pocock) is ten miles, and there are several secondary bays facing this opening. Four rivers flow into them, the Kawa-Kawa, Kiri-Kiri, Loytangi, and Waicaddie, into which the tide flows a few miles, after which they become small streamlets, varied by some waterfalls. There are many minor indentations, which render it impossible to move any distance without a boat; and it is often necessary to make a turn of five or six miles around an inlet or marsh in going to a place, which might be reached in one-tenth of the distance by water.

The land has the appearance of barren hills without accompanying valleys, and there is so little level ground that terraces are cut in the hills to build the cottages on. The whole view is any thing but picturesque, and there is little to meet the eye except bare hills and extensive sheets of water. Some fine views are, however, to be met with from the elevated ridges, which afford occasional glimpses of the bay, with its islets.

Many of our gentlemen were struck with the resemblance of this land to that of Terra del Fuego. Black islets and rocks, worn into various shapes, are found, as in that country, at all the points in the bay through which a boat can pass. These rocks are of a basaltic character. About the Bay of Islands the rock is compact and argillaceous, showing little or no stratification, and is for the most part covered with a layer of stiff clay, two or three feet thick, the result of its decomposition. The hills about the Bay of Islands are generally from three to five hundred feet high, but some of those at the head of the bay reach one thousand feet. The district about the bay and the northern portion of the island, may be styled volcanic; for, in addition to rocks of undoubted volcanic origin, all the others had in a greater or less degree undergone the action of fire. Our naturalists were informed that the valley of the Thames was of a different character, although many persons represented the whole island as volcanic. The ridges in the northern part of the island were not thought to rise more than two thousand feet. The Rev. Mr. Williams, missionary at Pahia, has crossed the island from Port Nicholson to Taaranga, during which journey he passed a district from which the snow was absent only four months in the year. This region is in the neighbourhood of the high peak of Mount Egmont, said, in the Sydney Almanac, but upon what authority is not stated, to be fourteen thousand feet high. Mr. Williams described the route as exhibiting volcanic phenomena on a large scale, among which were quantities of pumice, extending entirely across the island, and an extensive plain, which had sunk in one place, and disclosed a bed of that substance, three or four hundred feet in thickness; he likewise spoke of geysers or jets of boiling water.

The only volcano that was known to be in action,

was one on a small island in the Bay of Plenty, on the east coast.

The imbedded minerals in the rock about the bay are quartz, iron, and iron pyrites.

The hot spring of Taiaimi was visited, but it is described as rather an emission of gas than of water. It is situated in a small basin, and forms a lake of three or four acres in extent; near the edge of this lake, gas is constantly bubbling up, usually through the water, to which it gives the appearance of boiling; and gas also issues from the surrounding land for an extent of several acres. The water was found to be warm, but did not scald. The neighbouring ground was destitute of vegetation, and appeared as if the surface of the earth had been artificially removed. Sulphur was abundant, and there was also a slight incrustation of alum. The water was strongly impregnated with iron, was much discoloured, and in smell and taste not unlike pyroigneous acid. A quantity of gas was brought away, but the bottle met with an accident before it could be analyzed. It is not inflammable, and had it been of a deleterious nature, the fact (from the quantities emitted) could not fail to have been perceived. It had no smell, and appeared not to differ from atmospheric air. The natives attribute medical virtues to these waters.

Twelve or fifteen miles to the westward of the Bay of Islands, near Taiaimi, there are several small extinct craters, rising about five hundred feet above the surrounding country. One of them is called Poerua, and is remarkable for the regular figure of its cone when seen from the eastward. Its western side is cut through by a deep gorge. The interior is covered with large forest trees and huge blocks of lava, while the exterior is clad in ferns of low growth. The diameter of the crater is about half a mile. The plain which surrounds the cone is composed of an uncommonly rich soil, strewed with lava, which the natives collect in heaps, in order to obtain space for cultivation. The lava does not extend far from the cone, and even in the interior, rock seldom appeared, but where it was seen it proved to be vesicular lava. The soil in the neighbourhood of the craters is richer, looser, and more fit for cultivation than in other places.

Dr. Pickering made a visit to Hokianga, on the western side of the island, and found that it had more of the forest character than the eastern. He took the direct road to Waimati, which is fifteen miles from the Bay of Islands. The river Waitanga was very high, and one of the chiefs, a large and muscular man, seemed to take particular interest in getting them across safe and dry; but notwithstanding his stature and all his care, he could not prevent a slight immersion*. The doctor arrived at Waimati at 4 p.m., and was kindly welcomed by Mr. Davis, the Methodist missionary, to whom he had a letter of introduction. It was not without surprise that he found here a water-mill in

* On the banks of the Waitanga, the adult inhabitants, to the number of twenty, were collected in a circle, each armed with a musket, and several had been met on the way, all armed. The cause of this unusual occurrence was not known. They are very fond of fire-arms, and on welcoming any one, particularly a chief, all the people of the village assemble and salute him with a number of rounds, in proportion to his rank.

operation, which the guides took care to point out with no little exultation. This, together with the fences, and well-cultivated fields, were the works of the missionaries. He remained with Mr. Davis for the night, who advised his proceeding direct to Hokianga; but the guides who had hitherto accompanied him were ignorant of the route, and another became necessary.

The next day they passed over the flank of Te-ahooahoo, a volcanic cone, and the most prominent elevation in this region. A little further on, a fine lake was passed, about three miles in length. At nine miles from Waimati, the wooded region was entered, which extended to Hokianga. Just before crossing the Hokianga river for the first time, the Baron de Thierry was met with, who was exceedingly polite. The road after this became difficult, it being necessary to cross the river repeatedly, and to follow the stream for some distance. The usual manner of crossing here is to be carried. The guides, under various pretexts, prevented them from reaching Hokianga, and they were compelled to stop four miles short of it, at a chief's called Tooron, of rather doubtful character.

Tooron, with his family, had worship both morning and evening, as is customary with converted natives, he himself officiating. The accommodations were none of the best. An open shed, with fire and blanket, were however sufficient to insure a good night's rest. Tooron was liberally paid, and so well pleased, that he said he was determined to carry his guests over the river himself. The road was any thing but good, being miry, and filled with roots of trees, so that their attention was wholly engrossed in seeking a good foothold. The river was again repeatedly crossed. On the way they met natives loaded with baskets of peaches, the season for which had arrived. They freely offered their fruit, for which tobacco was returned. Before noon, they arrived at Baron de Thierry's house, where they were hospitably received by his lady. This house is situated at the head of tide-water on the Hokianga river, about thirty miles from its mouth, and boats can ascend as far as this place. There is no village at the mouth of the river, but many whites reside at different points on its banks. There is a bar between the headlands at its mouth, which will admit only of small vessels entering.

Our travellers had intended to return the next day, but one of their guides, by the name of Poee, was missing. He had been allowed to take up his quarters at a short distance, on condition of his being ready for an early start; on inquiry, however, they were informed that Poee had said he did not intend to go back until Monday, which was two or three days off. They departed without him, but before reaching Tooron's, Poee again joined them, having a piece of pork, which one of his friends had furnished for the doctor's supper.

Mr. Davis's was reached at dark, and the same warm greeting experienced as before. The next day they reached the Bay of Islands at Pahia.

Pahia is the principal missionary establishment of the Episcopal Church. It is pleasantly situated on the bay, opposite Kororarika, and is the residence of all those attached to the mission, and their printing-presses are there. It is too much exposed to afford a good harbour for shipping, but as it is the

most favourable side for communication with the interior, the advantages and disadvantages of its position are nearly balanced.

Kororarika is still the principal settlement, and contains about twenty houses, scarcely deserving the name, and many shanties, besides tents. It is chiefly inhabited by the lowest order of vagabonds, mostly runaway sailors and convicts, and is appropriately named "Blackguard Beach."

The appointment of the police magistrates was one of the first acts under the new order of things. Mr. Robert Shortland, the first police magistrate, after the illness of Governor Hobson, styled himself acting governor, and a more ridiculously pompous functionary could scarcely be imagined. He paid a visit to the vessel in which some of our gentlemen had made the passage from Sydney, and demanded the reason why the mail-bag had not been sent to the new government postmaster. The master of the vessel replied, that he thought it his duty, not having been informed of any change, to deliver them to the old postmaster, until he should be directed otherwise by Governor Hobson. This pompous functionary, in an improper tone as well as manner, exclaimed "I wish you to know that I am governor now!" In the words of one of the gentlemen, "had he been the viceroy of the Indies, he could not have made his inquisitions in tones of loftier supremacy."

Some of our gentlemen arrived at the Bay of Islands in time to witness the ceremonies of making the treaty with the New Zealand chiefs. I mentioned, whilst at Sydney, the arrival of H.B.M. frigate the *Druid*, with Captain Hobson on board, as consul to New Zealand. It was well understood that he had the appointment of lieutenant-governor in his pocket, in the event of certain arrangements being made. His arrival at the Bay of Islands, in H.B.M. ship *Herald*, seemed to take the inhabitants, foreigners as well as natives, by surprise. A few days afterwards, on the 5th February, a meeting was called at the dwelling of Mr. Busby. The meeting was large, and numerous attended by the chiefs. Many arguments and endeavours were used to induce them to sign a treaty with Great Britain, all of which were but little understood, even by those who were present, and had some clue to the object in view. Great excitement prevailed, and after five hours' ineffectual persuasion, the meeting broke up, every chief refusing to sign or favour Captain Hobson's proposition, which was in reality nothing more or less than a cession of their lands, authority, and persons, to Queen Victoria. Among the arguments made use of, he stated that unless they signed the treaty, he could do nothing more than act as consul! Nothing having been effected, the meeting was broken up, and the following Friday appointed for a second. Tobacco and pipes were given them before they departed, which restored their good humour, and they went away shouting.

In the mean time, Mr. J. R. Clendon, an Englishman acting as American consul, the missionaries, and many interested persons residing there, or about becoming settlers, were made to understand that their interest would be much promoted if they should forward the views of the British government. Every exertion was now made by these parties to remove the scruples of the chiefs, and thus to form a party strong enough to over-

reach the rest of the natives, and overcome their objections. About forty chiefs, principally minor ones,—a very small representation of the proprietors of the soil,—were induced to sign the treaty. The influence of Mr. Clendon, arising from his position as the representative of the United States, was among the most efficient means by which the assent, even of this small party, was obtained. The natives placed much confidence in him, believing him to be disinterested. He became a witness to the document, and informed me, when speaking of the transaction, that it was entirely through his influence that the treaty was signed."

The lieutenant-governor installed himself, confirmed the appointments of a host of government officers, and the whole machinery, that had been long prepared, was put in motion. Proclamations were issued by him, extending his authority over all the English residents on both islands! and it was considered by the Englishmen as good as law, though far otherwise by the other foreigners. After this, the lieutenant-governor proceeded to the district of the Thames River, or Hauaki, in the Herald, for the purpose of procuring a similar cession of the country; but before this could be consummated, he was attacked with paralysis, and the Herald was obliged to depart for Sydney.

So far as the chiefs understand the agreement, they think they have not alienated any of their rights to the soil, but consider it only as a personal grant, not transferable. In the interview I had with Pomare, I was desirous of knowing the impression it had made upon him. I found he was not under the impression that he had given up his authority, or any portion of his land permanently; the latter he said he could not do, as it belonged to all his tribe. Whenever this subject was brought up, after answering questions, he invariably spoke of the figure he would make in the scarlet uniform and epaulettes that Queen Victoria was to send him, and "then what a handsome man he would be!"

Those who are not directly benefited by the change, cannot but view it as a disastrous circumstance for the natives, which will seal their doom, and make them the prey of the hosts of adventurers who are flocking in from all parts, some to be engaged as public officers, and to fatten on the coming revenues, and others as speculators. During our stay, a cutter arrived from Sydney, with a number of revenue officers, magistrates, and other minor dignitaries.

New Zealand continued under the authority of New South Wales until September, 1840, when it became a separate colony. One of the first acts of the new government has been, by proclamation, to require all those who have acquired lands by purchase from the natives, to exhibit their vouchers, and to show how much land they had purchased, and the price paid. At the same time, a committee was appointed to examine these claims. A few statements made by this committee will show how the spirit of speculation has been at work in New Zealand. Up to October, 1841, they reported that five hundred and ninety-one claims had been entered by two hundred and eighty individuals; of these, there are four hundred and thirty-five claims, amounting to thirteen millions nine hundred and twenty thousand four hundred and eighty-two acres. The remaining one hundred and fifty-six

claims are not defined by ordinary landmarks, but are limited by degrees of latitude and longitude, and computed in square miles instead of acres. The last description of claims are considered, at a moderate calculation, to be double the amount of the four hundred and thirty-five claims, so that in round numbers, the claims already sent in to the commissioners may be estimated at forty millions of acres. For four hundred claims, affidavits have been made, and the total value of goods and money paid by these claimants is thirty-four thousand and ninety-six pounds.

For one hundred and ninety-five claims, no value is stated; but if paid for in the same ratio, the amount will be nearly forty thousand pounds, or about one penny for three acres. The whole surface of the two islands does not contain more than eighty thousand six hundred square miles, or fifty millions of acres, and the largest part of them has not yet been sold by the natives, viz., the Waikati district, Rotorua and Taupo, in the interior, as well as the whole of the eastern coast of the northern island; so that it will be difficult to find a space wherein to locate these enormous claims.

Laws have likewise been promulgated and imposts levied, harassing to foreigners, (Americans and others,) and most destructive to their commercial pursuits, while they offer the most marked protection to those of British subjects! This would seem not a little unjust to those who have been resident, and extensively engaged in commerce, before England took possession, and whilst New Zealand was acknowledged as an independent state. It has, among other things, been enacted, that all goods imported and remaining on hand on the 1st of January, 1840, the time of British assumption, shall pay duties; that all lands are to be considered as belonging to the queen, even those purchased of the chiefs prior to the treaty, while the purchasers shall be only entitled to as many acres as the amount paid to the chiefs will cover at the rate of five shillings per acre. The government in addition reserves to itself the right to such portions as it may require. Many of these purchases were made from the native chiefs, prior to the treaty, in good faith, and for an equivalent with which they were well satisfied, and so expressed themselves.

The destructive effect of these laws on American commerce will be great, particularly as those engaged in mercantile pursuits find themselves called upon to pay heavy duties on their stocks. Americans are not permitted to hold property, and, in consequence, their whaling establishments on shore must either be broken up altogether, or transferred to other places, at a great loss of outlay and capital. Our whalers are now prevented from resorting to the New Zealand ports, or fishing on the coast, by the tonnage duty, port charges, &c.; are denied the privilege of disposing of any thing in barter, and obliged to pay a duty on American articles of from ten to five hundred per cent. The expenses of repairs have so much increased, that other places must be sought for the purpose of making them. The timber and timber-lands are exclusively claimed as belonging to her majesty. Thus have our citizens been deprived of a fishery yielding about three hundred thousand dollars annually in oil.

The expenses of this new government were esti-

mated for the year 1841 at 50,922/ 3s. 4d. sterling, which is about equal to 10/ for each man, woman, and child; for the whole foreign population on all the islands is not supposed to be more than five thousand. The great precipitancy with which the islands were taken possession of, is said to have been owing to the fears entertained that the French intended forming a colony on the southern island in like manner.

After my arrival I gave the men liberty. Among the first who obtained it was John Sac, a native of New Zealand, and of the neighbourhood of this bay. His native name was Tuatti, and he was a petty chief. He had been some time absent from his country, and had sailed in the expedition from the United States, was an excellent sailor, a very good fellow, and had been enthusiastic in the praise of his country and countrymen. According to him, there was nothing like New Zealand; and under this feeling he hired a canoe to take him on shore, for which his countryman charged him three dollars, although half a dollar would have been an exorbitant price. He landed at Tibbey's, and being desirous of going to his friends, wished to engage a canoe to take him about ten miles up one of the rivers, the Kawa-Kawa, where they resided. For this conveyance he was asked 2/., nearly a month's pay. Poor John could not submit to this extortion, and was found sitting on a log, greatly mortified, depressed, and incensed at such treatment.

After John returned on board, he made a proposition to Mr. Waldron, in a letter, to purchase the island which he called Motugee, with the territory of Muckatoo, belonging to his father and family, and expressing his belief that they were all opposed to the encroachments of the English, and were determined not to part with their land to them.

Although the land about the Bay of Islands is much cut up by indentations, yet from this circumstance it affords many pretty views, which have in some respects an appearance of an advance towards civilization, that one hardly expects to find within the scope of the residences of these savages.

At the time of my visit, which was, as has been seen, immediately after Captain Hobson's arrival, and the signing of the *treaty*, or cession, it was evident that full seven-eighths of the native population had the same feelings as are found expressed in this note. The circumstances that have occurred at New Zealand fully prove the necessity of having American citizens as our consuls abroad. Mr. J. R. Clendon, our consul at New Zealand, an independent state, and the only representative of a foreign power, whose interest was at stake, was consulted by some of the most powerful and influential chiefs, who had refused to sign the treaty or cession to Great Britain. They came to Mr. Clendon for advice, how they should act, and he admitted that he had advised them to sign, telling them it would be for their good. He himself signed the treaty as a witness, and did all he could to carry it into effect; but, in doing this, he said, he had acted as a private citizen, by request of the governor, thus separating his public duties from his private acts. At the same time he buys large tracts of land, for a few trifles, and expects to have his titles confirmed as consul of the United States. This is not surprising, and any foreigner

would undoubtedly have pursued the same course; for his personal interest was very great in having the British authority established, while the influence he had over the chiefs was too great not to attract the attention of the governor, and make it an object to secure his good-will and services.

The prospects of these islanders are, in my opinion, any thing but pleasing, and the change by no means calculated to insure their happiness, or promote their welfare. It seems to have been brought about by a rage for speculation, and a desire to take possession of this country, in order to secure it from the French. The idea that it was necessary to extend the laws of New South Wales over the island, in order to protect the natives, and break up the nest of rogues that had taken refuge there, is far from being true. No such necessity existed, for there was no difficulty in having any one apprehended by sending officers for the purpose, or offering a reward.

The New Zealand Land Company have been the secret spring of this transaction, and under the shelter of certain influential names, the managers have contrived to blind the English public. It will scarcely be believed that the New Zealand Land Company had disposed of several thousand shares of land before they purchased an acre. Some three or four thousand emigrants, who had purchased allotments, left England on their way to take possession of them, just after the agent. Upon their arrival they could obtain no satisfactory information respecting their allotments, and were left in a destitute condition, to spend the few earnings they had left, and to endure all the privations to which people landed in a new country are subject.

Even of those allotments that have been given out, many are not susceptible of cultivation. It is scarcely to be believed that the high names which stand at the head of this company could have been informed of the true state of things; yet it is generally supposed in this part of the world, that it is by their exertions and influence that the British government has been induced to take forcible possession of the territory of an independent state, which New Zealand undoubtedly was. However this may be, the speculators have succeeded in their object, and the country will now be retained by England, even if a military power should be necessary. Should the New Zealanders resist, and they are a warlike race, yet acting against European discipline, they will readily be overcome. They are not unlike grown children, and may be more easily ruled by kindness, and by satisfying the wants of the chiefs, than by force. The population will soon disappear before the whites, for the causes that have operated elsewhere are to be seen in action here, where the savage is already sinking imperceptibly before the advances of civilization. While philanthropy, real or pretended, is ransacking the globe to find subjects for its benevolence, it seems a little surprising that scarcely a voice has been raised in Parliament against this act of usurpation.

On the 29th of February, 1840, there was a violent gale at the Bay of Islands, said by the missionaries to have been the severest they had experienced, with perhaps the exception of one which took place shortly after their arrival. Many vessels

suffered great damage. The Thorn, of Sag Harbour, which sailed a few days before, bound home, was obliged to put back, and in consequence of the damage received, was condemned as unseaworthy, as was also the Tuscan, an English whaler. The barque Nimrod arrived, having lost her topmast, and several coasters were missing, supposed to have been lost. Most of the vessels lying off Kororarika dragged their anchors, but they suffered less from not being much exposed; the Harriet was driven ashore at Tipooa, a few miles to the eastward, near Point Pocock. This vessel parted her cables during the night, and the next morning was found a complete wreck. The crew barely escaped with their lives. Besides these disasters on the water, those on the land were also great: fences were carried away, houses deluged, grounds overflowed, wharves injured, and the extensive embankment of the missionary establishment at Pahia nearly demolished. The tide rose six feet during the night of Saturday, beyond its usual mark, which caused most of the damage.

This gale was experienced at the Thames on board H. B. M. ship Herald, one hundred and forty miles to the south; also by the Flying-Fish, off Cook's Straits, and by the bark Achilles, to the north. Mr. Hale was a passenger in the last-named vessel, and took barometrical observations and notes during the continuance of the gale.

From the observations, it appears that the change took place at the two northern and two southern positions, in opposite directions, proving that the gale was a rotary one, and that its centre must have passed between the Bay of Islands and the river Thames. The greatest force of the gale was between the hours of 1 and 3 A.M., on the 1st of March. At the Bay of Islands, a calm was observed by Mr. Dana and others, which lasted fifteen minutes, after which the wind rapidly hauled round to the westward, and blew with increased violence. On board the Herald, the barometer fell to 28.75 in., and from the fact of the gale having been experienced first to the northward and eastward, it is certain that it came from that quarter, and passed over New Zealand in a south-west direction: the width of the track was about five hundred miles.

Foreign residents have established themselves in many places, and on all the inlets or arms of the Bay of Islands their cottages are to be seen, occupying the points and coves.

On the north, the British resident, Mr. Busby, has built a large and commodious cottage, and commenced laying out his grounds in town lots for the future city of Victoria, of which there was a public sale previous to our arrival. All the lots were, I believe, purchased on speculation, for after seeing the locality, one must be convinced that it offers no advantages for more than a village, if indeed for that. More to the westward is situated Pahia, the mission establishment. For commercial purposes, the south or Kororarika shore offers the greatest advantages, having the deepest water, and being the most sheltered from the stormy winds.

The extent to which speculation has raised the prices of land in this neighbourhood is almost incredible. Mayew's Point, the first above Kororarika Bay, has on it a few storehouses, which are rented for six hundred pounds a year.

Mr. Clendon, the American consul, for about

three hundred and twenty-five acres, of which only fifty are level, has received thirty thousand pounds from the British government, reserving to himself the remainder, one hundred acres. He bought the whole for a trifle a few years ago. The location is a pretty one, on a hill about three hundred feet high, and is, perhaps, the most commanding spot on these waters. The neatness of his cottage and of the grounds about it adds much to its pleasing appearance.

The introduction of a Sydney police at Kororarika has been of service to that place, for they have dealt in a summary manner with the vagabonds who formerly frequented it.

A Roman Catholic bishop is established here, who has a chapel, and it was said, was making many converts; but it was supposed that the principal inducement to conversion was the liberality with which he and his associates bestowed gifts and presents upon those who joined in their prayers and received the cross.

Besides the Episcopal mission, under the Rev. Mr. Williams, formerly a lieutenant in the British navy, there is a Wesleyan mission at Hokianga, which is highly spoken of. Many reports have been put in circulation by the evil-disposed, in relation to these missions; but as far as my observations went, they seemed exemplary in their duties; they were also occupied in farming, in which native labourers were employed. Mr. Williams having a large family growing up, many of them obtained farms, and are now in the successful occupation of them. There is no doubt the hue and cry against the father, that the mission had obtained all the best land from the natives, arose from this cause. Some circumstances were remarked, from which it was evident that the interests of the natives were looked after by the missionaries, who protected their lands and induced them not to sell to the emigrants, who would otherwise have found them only too ready to part with them.

It is true that the situation of these missionaries of the Church of England is different from that of any we had heretofore seen, and equally so that they do not appear to have succeeded as well in making proselytes as those in the other Polynesian islands; but I am persuaded that they have done, and are still endeavouring to do, much good. They are, however, separated, as it were, from their flocks, and consequently, cannot have that control over their behaviour that would be desirable. Many scenes, therefore, take place at the pas or strongholds, that might be prevented if the missionaries mingled more with their converts.

Mr. Williams was kind enough to have divine service at the house where our naturalists stayed, —Mr. Tibbey's. I was not a little surprised when I heard that Mr. Williams had refused any opportunity to our philologist to inspect a grammar of the New Zealand language, that was then going through the press. I mention the circumstance as remarkable, from being the only instance of the kind that occurred to us during the cruise; and it cannot be easily imagined what could have been the cause of his refusal, for a very short period after our departure it would be published, and there could have been no fear of his being forestalled by us.

Among the natives the taboo is yet law, though endeavours are making to introduce other laws

among them. It was told me, on good authority, that there had been a trial for murder by a jury of chiefs at or near Hokianga, under the direction of a white man, but there was great reason to believe that the person did not receive that impartial justice which a duly-organized court would have assured him. The evidence was said to have been deficient, but the current belief being against him, he was notwithstanding shot.

The natives, we were told, were not a little surprised at the summary way in which justice, or rather punishment, is dealt out by the magistrate of Kororarika.

Their taboo laws are very strict, and carefully observed, even among those who are considered Christians. The chief, Tomati, refused to enter the house of a person whom he took Mr. Hale to visit; for if he had entered, it would have become tabooed; and the native law, which does not permit any man to enter a house in which a chief has resided, even temporarily, would have compelled him to abandon his dwelling. Women alone are allowed to enter the houses of chiefs. An instance of this was witnessed at the pa of Pomare, and another where we attempted to purchase the prow of a canoe. This prow, which was elaborately carved to represent some nondescript animal, with a human head, having the tongue protruded, was accidentally seen in an out-of-the-way storehouse, and was somewhat mutilated; it had belonged to the late chief Kiwikiwi, and was tabooed in the first degree. Overtures were made to the widow of Kiwikiwi for its purchase. It was evidently considered very sacred, for none of the natives would touch it, or even enter the storehouse in which it was kept. Notwithstanding all its sacredness, it was sold, after a little chaffering, for six dollars. The first price asked was two pounds, but the widow could not resist the chance of its sale. After the bargain was concluded, no native could be found willing to incur the penalty of the taboo, by carrying it. When the transportation was accomplished, a new and unexpected difficulty arose: it could not be carried across the water in a canoe, as it was against taboo to do it. The threat of making them refund the money, and take back the *ihu* or nose, so worked upon the covetousness of old Kawiti, the chief, that he consented to remove it, and also promised to come the next day and paint it red, after the native fashion. This he punctually performed, using a kind of red earth mixed with water.

The taboo is always resorted to, to protect their kumara-patches, and the fear of breaking it was strongly shown by the intrusion of Mr. Tibbey's goats into the kumara-patch of Pomare, near his pa. No one could be induced to go in to drive them out, for fear of punishment; and a message was sent to the chief to allow them to be expelled. After the permission was given, the natives could not be induced to enter by any other place but that where the goats had broken through.

The natives, for the most part, have their permanent residence in towns, or what are here termed "pas," which are generally built on high promontories, or insulated hills, and fortified in a rude fashion, with a palisade of upright stakes, about ten feet high: the houses or huts are all built closely together.

Pomare's pa being near our anchorage, was

frequently visited. It contained about three hundred huts. There was a main entrance through the palisade, near which are two posts, the tops of which are carved into distorted representations of the human figure.

Within the main enclosure are other enclosures, each containing five or six houses, with alleys of two feet wide, that traverse the town. Their houses are very simply constructed: four corner-posts are driven into the ground, and left from two to five feet above the surface; in the centre line two or three strong posts are firmly set in the ground, to support the ridge-pole of the roof; on the posts is placed and lashed a horizontal beam for the rafters to rest upon, and smaller poles are lashed to the posts, at one foot apart, from the ground up; on these the roofing is worked: the material used in thatching is the rush (*typha latifolia*), or our common cattail. The manner of making the roof is to tie the materials on the horizontal strips or poles, setting the larger ends on the ground, and driving them close against each other, generally with the fist, and so on until all is closed in, leaving doorways under the eaves, at the gable-ends; the *rappooing* is then cut square off at the upper horizontal beam or plate-piece, and the roof is put on, made of the same material, and generally thatched with it or fern. The roofs have usually but little pitch, which gives a squat look to the houses. Mats are generally hung up at the doorways, but some have doors made of pine; they are low, obliging one to stoop or creep, in entering. Around their houses they have usually peach trees growing, but nothing else is cultivated about them.

The furniture consists of mats, a few baskets and trinkets, an old chest to lock them up in, an iron pot, and a double-barrelled gun, generally of the best maker.

Pomare's house was about twenty feet long by twelve broad; from five to eight feet high. The mode of construction was the same as above described, with the exception that the rafters were flat and ornamented with arabesque work, drawn with soot or black pigment. The posts were likewise carved; but from the dirt and filth with which they were covered, it was difficult, if not impossible, to decipher them. It is said that the New Zealanders have improved in the art of building since they were first visited, but they are still in this respect far behind any of the islanders we have visited.

Four of our gentlemen, before my arrival, had paid Pomare a visit, and made him some presents, which, so far from satisfying his cupidity, only made him more covetous. On receiving a watch-chain, he asked for the watch; and could not be induced to exhibit a dance, unless each person presented him with a shilling. This exaction was submitted to, though they were disgusted and disappointed with the greediness he manifested. The dance proved very similar to those seen among the Samoans and Tahitians, with the same tossing of the arms and legs, and various contortions of the body, performed by a number of men and women. The only music was that of the voice, two or three singing in a high monotonous key. The dance was, however, seen to disadvantage by candle-light.

On the top of the hill is a sacred enclosure, or

Kianga-taboo, in which is erected the tombs of the chiefs. A few days before our visit one was interred here.

This tomb is formed of a small canoe, cut across through the middle, and the two parts joined face to face, forming a hollow cone, about seven or eight feet long. The corpse is placed inside, in a sitting posture, and would remain there a year, after which the bones would be carried up the river, and as Charley Pomare expressed it, would be "thrown away any where."

The tomb is painted red, and ornamented with feathers on each side, from the ground to the top; it is covered with a small shed, to protect it from the weather, and enclosed all around with a fence. The funeral ceremonies were not witnessed, but, from the description of the natives, were very noisy, and accompanied with firing of many guns, —a general practice on all public occasions. Their faces and arms bore evident marks of their having been engaged in the ceremony, being covered with scratches which they had inflicted on themselves.

The pas of the natives are not in reality strong places, but are little more than insulated and commanding situations. Pomare makes some show of warlike instruments, in the formidable array of three ten-pounders, all of them in bad condition, though looked at and spoken of by the natives with no small pride and conceit. The natives, in time of peace, do not live constantly in these pas, but are mostly occupied at their plantation-grounds; for which reason only a few men were seen lounging about in front of their houses. The women were generally engaged in making and plaiting mats, or cooking, and the men seemed the greater idlers.

Their native dress consists of mats of various kinds, made of the native flax (phomax), which are braided by hand, and are, some of them, finer than carpeting, while others are as coarse as our corn-leaf mats. The latter were worn by the women while at work, tied around the hips, and sometimes over the shoulders. They carry their children on the back, like our Indians.

The men were more luxurious in their dress, having fine mats, nearly as large in size as our blankets, ingeniously and beautifully wrought, and sometimes embroidered. Both of these kinds are still worn, though they are gradually disappearing, and the dress is becoming more European, or rather Tahitian. The women now often wear loose slips of calico, drawn about the neck, which are any thing but becoming, while the men have coarse clothing, sometimes a dirty white blanket, at others, different parts of European dress. The blanket is worn in the same manner as the native kakahu. They never think it necessary to use clothing for a covering; it is worn more from pride and ostentation than any thing else; and not unfrequently a native may be seen decked out in a coat and vest without any covering on his nether limbs, and occasionally with a pea-jacket and no shirt. That which gives a foreigner a peculiar disgust to the persons of the New Zealanders, is their filth, which also pervades their houses. They seldom, if ever, bathe themselves, or wash their clothes, which are usually worn until they drop off from age. They occasionally anoint their skins with fish-oil, and of course cannot be expected to keep themselves clean.

To their houses, the description of Cook still applies: they are small, low, begrimed with soot, besmeared with grease, and are filled with filth. As yet, their furniture has received no addition from their intercourse with the whites, except the huge sea-chest and iron pot: the former to deposit their valuables in, and the latter for cooking. It was remarked by us all, how few of the grotesque figures, so much spoken of by voyagers, were to be seen. There appeared to be little carving recently done, in comparison with former times. They are said to have improved in the construction of their houses; but there is still great room for improvement, before they can vie with any of the other islanders we have visited. Their food consists principally of the potato, fish, kumara, or sweet potato, Indian corn, and fern-root, which is found throughout the country. The kumara is much smaller and inferior in quality to those grown in the other Polynesian isles. Here it is a small watery root, and is generally disliked by foreigners. It is preserved in houses constructed for the purpose, to prevent the depredations of the rats. These are built on four posts, which are scraped exceedingly smooth, and are only entered by a single slanting post. The roots are also suspended beneath these houses in large baskets.

Fish are taken with hooks and nets, and are dried and laid by for use. They also eat a clam, which they call *pipi*. Hogs and poultry are raised in abundance, for their own use and the supply of ships. They have, as I before stated, peaches, as well as many small berries, and in a few years they will have all the fruits of the temperate zone introduced by settlers. They formerly ate their fish raw, or cooked with the kumara, after the Polynesian fashion, in the ground, with hot stones; but now they use an iron pot, in which all their food is boiled together. They have a great fondness for rice, with sugar or molasses. They do not want for food, for their country is well supplied with wild roots, which in case of necessity or scarcity can be resorted to. They also make a pleasant beverage, resembling spruce-beer, which they call *wai-maori*.

The greatest changes which have taken place in their customs are the introduction of the use of fire-arms, and the adoption of whale-boats instead of their canoes. The latter are without an outrigger, and differ in this respect from the boats of all the other Polynesians south of the equator. They have also adopted the square sail (which generally consists of a blanket), in place of the triangular one common to all Polynesia.

The ornaments of the New Zealanders are few; those of the men, who are chiefs, generally consists in an elaborate tattooing, that gives a striking appearance to the face; the regularity with which it is done is wonderful. They all have their ears bored, and have small rings in them, made of jade or shark's-teeth, tipped with sealing-wax, or small bright-coloured feathers. Around the necks of the chiefs and their wives is hung their "*heitiki*," made of a stone of a green colour, which is held very sacred, and which, with their "*meara*,"—a short clever or club,—is handed down from father to son. The *heitiki* has some resemblance to a human figure, sitting with crossed legs. This stone is procured from the southern island, near the borders of a small lake, which receives its name

from the stone, being called Tewai Pounamu or the Green-stone Water. From the name of this stone, Cook, by mistake, gave the name of Tavy Poenamoo to the southern island. It is also supposed that Captain D'Urville's name of Ika-maw (meaning, the fish out of Mawi), given by him to the northern islands, may also be the name of some place on the northern side of Cook's Straits. Those who are acquainted with the natives and their language say, that they have no native name for either of the islands, or any part of the country, and have adopted into their language the names given by the whites, with modifications to suit their tongue.

It was a long time before Pomare would consent to his wife parting with the heitiki which she wore, and that belonging to himself (his atua) he would not allow us to take off his neck, even to look at. Our consul interpreted for me a singular story that the southern natives had invented, relative to these stones: "That they were found in a large fish, somewhat resembling a shark, which they were obliged to capture and kill for the purpose of obtaining them. When first taken from the stomach of the fish, the stone is soft, but from exposure becomes hard, and must be wrought in its soft state." This story was related by Pomare. The smaller stones were about three inches in length, and the larger ones about five inches.

Pomare is a fine-looking man, and is handsomely tattooed. He is six feet in height, and well-formed, with the exception of his feet and legs. His dress was any thing but becoming: a blanket was tied about his neck, and hung ungracefully about his person, leaving his right arm free; beneath this he wore a shirt and loose pair of drawers, descending to his knees; the rest of his person and his feet were bare. In his hand he usually carries a short cloak of dogskin, called *topuni*, *shupuni*, or *patutu*. These short cloaks are, in shape, not unlike those of the knights in ancient times; they are about three feet long, being formed of common cloth, mat, or sewed dogskin, dressed with the hair on. Pomare's dress was surmounted by a blue naval cap, with a gold-lace band. The tattooing may give his features somewhat of a fierce aspect, and serve to disguise the expression, yet I cannot but believe that his true feelings are developed in it. His face indicates any thing but a kingly character. Perhaps his reputation for business may have something to do with the impression his physiognomy produced. He told me he had two wives, but it is generally believed that thirty would be nearer the truth. The favourite one usually accompanies him; she is highly spoken of for her good sense, and Pomare is said to place much confidence in her judgment. She was the best-looking native I saw in New Zealand, but would not be called handsome elsewhere. The missionaries have not yet been able to produce any effect upon Pomare or the family connected with him. Pomare's chief warrior is Mauparawa, who has been persuaded to remain with him, although a native of Hauaki, on the river Thames.

Mauparawa is a much finer-looking man than Pomare,—in appearance a very Hercules; but the effects of dissipation are beginning to be perceived in his powerful frame. He has long been a fa-

vourite with the whites, who admire him for his prowess. Many of his followers came with him to join Pomare, of whom few are now left; for in an expedition last year he lost almost all of them: having landed on Aoteu or Barrier Island, he was overpowered and badly wounded, barely escaping with life. One of his acts of daring took place in the last feuds with the Kororarikans, by whom he was much detested. Wishing to put a disgrace upon them and show his contempt, he one night took his canoe, and with six of his followers left Pomare's pa or stronghold for Kororika, the heart of his enemies' strength. He landed there in the midst of his foes, whom he found fast asleep. Drawing up his canoe on the beach, he went to the house of a white man, whom he awoke, and ordered him to give himself and followers some spirits, threatening him, in case of refusal, with instant death. They took their spirits quietly, desiring the man to say to the Kororarikans in the morning, that Mauparawa had been there in the night, with some insulting message; but before leaving, it occurred to him that the man would not have the courage to tell of his visit: he therefore determined to leave his own canoe, (which was very well known,) and take a whale-boat in its stead. All of which was done merely to throw a slur upon his enemies, at the risk of his own life.

Another person of some note is a cousin of Pomare, called Charley Pomare, the son of the former ruling chief of that name. Hoia, the brother of the king, appears to be a stupid fellow. Charley Pomare was very talkative and intelligent, and although young, appears well-informed in the history of the island. In his accounts, he dwells particularly on the extensive ravages committed by Shougi, who I believe was taken or went to Europe. After his return, finding he had lost influence in his tribe, in order to regain it, he committed some of the most barbarous cruelties that have ever disgraced these islands, and made his name terrible among the tribes. Most of these, before his wars, had from three hundred to one thousand warriors, but only a few now remain in some of those who were formerly powerful and independent, and who being from their weakness unable to contend by themselves, have become incorporated with other tribes. The reason that the natives give for this diminution is, that Shougi had killed them all. His conquests embraced nearly all the northern part of the north island, whose warriors he then united, and led against the people of the south, about Hauaki, on the river Thames. With these he waged a long and bloody war, and extended the name of Ngapuhi, which properly belongs to the people about the Bay of Islands, as far south as Kiapara. His death, which happened a few years since, was a great relief both to his followers and foes.

The last war took place in 1837, about two years before our arrival. It was, in all probability, the last native contest that will be waged. It was caused by the disappearance of a woman of Otiuiha, whom the tribe of Kororika were suspected and accused of having killed and eaten. Formidable preparations were made, and the allies on both sides called in; the people of Kororika being aided by the forces from Hokianga. The principal battle was fought in a piece of marshy ground between Waikereparu and Otiuiha. Here Pomare,

better known by the name of Charley, then quite a boy, led the forces of Otiuiha, while those of Kororarika were marshalled by Pi, a great chief of Hokianga; and the fight was terminated by Charley first shooting Pi, and then the second chief, who was endeavouring to save the body, with his double-barrelled gun. The heads of the warriors were cut off, and preserved as trophies, while their bodies were left on the ground. They were not eaten, though the Hokianga people are said to be cannibals. This latter imputation, however, should be received with caution, as the information was derived from their enemies.

From all I could learn, Pomare is not deemed very courageous, and was not himself engaged in the fight. He is looked upon as quite avaricious, and as a great coward: he is much addicted to liquor. It will, perhaps, excite surprise to learn how he came to exercise the influence he does over his countrymen; it is entirely owing to his eloquence, by which he is enabled to lead them any where. When Charley was asked the cause of his uncle's influence, he said that Pomare could lead the people wherever he chose; and to the question as to why he himself was not king, he answered, "Oh, that is maori" (country fashion).

Some of the gentlemen visited the pa of Pomare, for the purpose of witnessing his return from a visit to one of his allies. The canoe was seen coming up the bay, paddled by forty-five natives, and on the side of the hill all the people of the pa were collected, shouting, waving their garments, and firing muskets, to welcome their friends. When the chief touched the shore, a curious scene ensued. All the boatmen seized their paddles, and ran some distance along the beach, where they halted, and formed themselves into a compact body, in martial array. Those of the pa did the same, and were stationed in front of the canoe; the former party then returned, and when near, the latter made simultaneously ten or twelve leaps directly upward, waving their paddles over their heads, and giving at each jump a hard guttural sound, like *hook*. The two parties then changed positions, when the boatmen went through the same motions, after which the whole mingled together. This ceremony was supposed to represent that used on the return of a war-party. Pomare was found shortly afterwards seated in front of his house, surrounded by his people, who were busily engaged in preparing a great feast, for which he was giving directions, and which shortly took place, accompanied by much merry-making.

The chief, Pomare, on one occasion paid a visit to the gentlemen of the squadron at Mr. Tibbey's, with some fish for sale, and for which he had been fishing several hours. He first asked a shilling for them, which was handed to him, when he immediately raised his price to two shillings, and when this was refused, he went away in high dudgeon, and complained to me on my arrival, that he had not been treated well. Many instances of the same kind occurred.

Mr. Hale induced Hoia, Pomare's brother, to give him a list of the various clans of the great Yopaki tribe, which under Shougi had formerly been the terror of all New Zealand. From this and other authorities, the number of the tribes were given at one hundred and five, in which were comprised upwards of sixty thousand fighting men.

Those who are more acquainted, and have the best opportunities of knowing, state the population at less than three hundred thousand; there are others who rate the population from thirty to forty thousand. A mean between the two estimates would be nearer the truth. From the information I received, I am satisfied that it cannot be great. The population of both islands is said to amount to from one hundred and forty to one hundred and eighty thousand, and the whole of this number are on the north island, with the exception of three or four thousand who are on the southern island. It is remarkable that every tribe has a name peculiar to itself, and distinct from the district which it inhabits: thus the natives of Kororarika are called Yaitawake; those of Hauaki (the river Thames), Ngaitawake; and with few exceptions these names begin with the syllable of Nga or Ngati—most commonly the latter. These names are thought to have reference to clanship. The members of each tribe appear to be all connected by the ties of consanguinity.

Some of our naturalists made a visit to a town called Wangarara, situated near the coast, about thirty miles to the southward of Cape Brett. They passed up the Waicaddie river eleven miles to Waicaddie Pa. Here they found a missionary station occupied by a Mr. Baker; but none of the family were at home. The old chief of Waicaddie was very indignant, and treated them quite uncivilly, because they were going to Wangarara. After procuring a guide, they set out on foot for that place. The distance is twelve miles, which they accomplished by sunset. The road lay over mountains. The village of Wangarara consists of four or five miserable huts, or what would more properly be designated kennels, made in the rudest manner, and thatched with fern-leaves. In order to enter these, they were obliged to crawl on their hands and knees. The furniture of the chief's house consisted of a few mats, two or three fishing-nets, and an old chest. A fire was smoking in the centre to keep out the musquitoes, and the resemblance to a smoke-house was striking; or, perhaps, the latter would have suffered by the comparison. The accommodations in this hut were rather confined and crowded; for besides themselves, there were three runaway sailors as guests. They, therefore, gladly accepted the invitation of the chief Ko-towatowa, who was on a visit here, to accompany him to his hut, at the mouth of the bay. They went with him in his fine large canoe, and reached his residence late in the evening, where they found themselves much more comfortably accommodated, having clean mats and a good supper of pigeons and potatoes. This was Ko-towatowa's principal farm. His pa is situated a few miles up the bay, on a rocky point, and contains one hundred and fifty houses. It was, at the time of their visit, nearly deserted, in consequence of the attention demanded by their crops; and this is the case with nearly all the other pas at this season.

This part of the country is flat, and has a good soil; and here Ko-towatowa raises most of his potatoes and kumaras, which are larger and better than those raised at the Bay of Islands. They also raise a good supply of Indian corn, and are at no loss for food, which was evident from the quantities of dried as well as fresh fish which was seen.

A great difference was perceived between the natives of this place and those of the Bay of Islands. The former have had little or no communication with foreigners, their manners are more simple, and they have little or no idea of the conventional value of money. The people of this place appeared more virtuous and happy, and a number of young women were seen, good-looking, sprightly, and full of animation.

They here saw the old chief of Wangarara, grand-uncle to Ko-towatowa. He was very feeble, with white hair, and clad in an old dogskin robe. He was observed to sit all day on a small mound of dirt and pipi-shells; having lately lost a relation, he, according to custom, is tabooed for the season. He does not help himself, and is not allowed to touch any thing with his hands; his grand-daughter, a sprightly girl, waits upon him; and it was pleasing to witness the watchfulness she evinced in attending to his wants, often filling and lighting his pipe, and holding it in his mouth while he smoked. Notwithstanding the promising appearance of Ko-towatowa's house and premises, it was found swarming with fleas and other vermin. Ko-towatowa is a member of the Episcopal Church, and daily performed worship in his native tongue. After their morning meal, they began their rambles, but had not proceeded far before they were met by a large party of natives, who kept saying to them, "*walk about one killing*," by which they soon understood that they were required to pay one shilling for the privilege of walking on the beach and picking up shells; on Ko-towatowa's being appealed to, he soon dispersed them. On a hill, near this place, Mr. Drayton found a beautiful specimen of *bulimus Shougii*.

Wangarara Bay is a deep indentation in the coast, to which it runs parallel, and is separated from the ocean by a narrow belt of high and rocky land. It is said to have good anchorage for a distance of six miles from its mouth. The entrance is very deep, free from danger, and about one mile wide: it is a much safer port than the Bay of Islands. A vessel might pass by its entrance without suspecting that a harbour existed. Provisions of all kinds are much cheaper and better than at the bay; and although the natives are aware of this difference, yet not being able to transport their provisions there, they are content to dispose of them for a less price.

Their kind friend Ko-towatowa took them back to Wangarara, stopping on the way at his pa, where he presented them with quantities of peaches, which had been tabooed to his people. At Wangarara they again found their guide, and the two old chiefs,—the elder of whom was called Kawau, and the other, a little younger, Ruahenna: both of them have the character of being great rascals. The contrast between them and Ko-towatowa was very much to their disparagement. With some reluctance they ordered a pot of potatoes to be boiled; but when night came, they positively refused entrance into their huts unless each gave a shilling, to which Ko-towatowa sternly objected, saying that they were his guests, and should not pay. A quarrel between the chiefs ensued, and the only way it was prevented from going to extremity, was to slip the money quietly into old Kawau's hand; after which, peace was restored, and they retired for the night, where

they were effectually tormented by the fleas and vermin. Ko-towatowa, on taking leave of them, refused any compensation for his services; but a pressing invitation to pay them a visit at the bay was accepted.

They returned by the same route, and by noon reached Waicaddie Pa. It contains about two hundred houses, and is situated between two small fresh-water streams. This is the most cleanly and extensive town in the neighbourhood of the Bay of Islands. Mr. Baker, of the Episcopal Mission, has settled here; he has many acres of land, and comfortable dwellings, farms extensively, and has about twenty head of cattle, with good pasture for them. The natives also possess some cattle. By night they reached their lodgings.

One who has long known the New Zealanders, and on whose judgment reliance may be placed, gives them credit for intelligence and generosity, and says that they are hospitable and confiding to strangers, persevering where the object concerns themselves, strongly attached to their children, and extremely jealous of their conjugal rights. A violation of the latter is punished with death, not only to the parties themselves, but sometimes extended to the near relatives of the offenders. They are crafty, but not over-reaching in their dealings, covetous for the possession of novelties, although trustworthy when any thing is placed under their immediate charge, but not otherwise over-honest.

A transient visitor would hardly give them so high a character, and would, I think, have an unfavourable opinion of the race. He might, however, award to them intelligence; but they appear vindictive, and, from a number of facts, must be treacherous. One cannot be long among them, without discovering that they are adepts in trickery, and suspicious in their dealings. These bad qualities they may have acquired from the number of low whites that are among them. They seem destitute of any of the higher feelings, such as gratitude, tenderness, honour, delicacy, &c. They are extremely indolent and dirty, disgusting in their habits, and carry on the infamous practice of traffic in women, which even the highest chiefs are said to be engaged in, openly and without shame. The vice of drunkenness does not exist among them to any degree, and it is not a little astonishing that the bad example set them should not have been more followed. They are extremely proud and resentful of any insult, to avenge which the whole tribe usually unites. As an instance of this, we may cite the conduct of Ko-towatowa, whose hospitality to one of our parties has been recorded. At the invitation of the gentlemen who had been indebted to him for attentions, he visited them at Tibbey's, when an untoward circumstance occurred, which had well-nigh ended in an open affront. As they were seated in the porch of Tibbey's house, one of their thoughtless visitors, by way of affording amusement to the company, played off upon Ko-towatowa a boyish trick, by burning him on the nose with a cigar. This produced great anger in the chief, who would have at once punished the rudeness, but through the timely interference of the bystanders, he became appeased, but required some atonement for the insult offered him; a half-dollar was given him, but he said he would accept only half, as he did not want to be paid for it, but merely desired a token

that it had been atoned for. In the opinion of all, he rose much above the silly trifler who had been the perpetrator of the joke.

The natives are peculiarly sensible to any insult of this kind. A short time before our arrival, a mischievous white boy, staying with our consul, had placed a small brass kettle on the head of an old chief, which caused some amusement to the bystanders. The chief at the time did not show any signs of being offended. He had always been well disposed and peaceable towards the whites, and was known to have a strong partiality towards the family. On going to the pa, however, he mentioned the circumstance to his tribe, which produced a great excitement among them. They assembled and advanced in a body to the dwelling, to require satisfaction for the affront offered, and although they were told and convinced it was done in playfulness, they required atonement; and this being refused, they took all the clothes that were hanging to dry on the lines, and every thing they could find about the premises. They even took the shoes and clothes off a sick boy, who was lying in the veranda. Their rapacity was only stopped by the courage of the mistress of the house, who, being unable to check their proceedings by remonstrances, threw a billet of wood at the principal chief. This bold act astonished him, and from admiration of her courage caused them at once to desist, saying she had a big heart, which is their figurative term for a courageous person. Insults given in this accidental way, have been known to occasion the most deadly feuds. They have, however, great command of temper when insulted. As an instance of this, an anecdote was related to me of some chiefs having become offended at the Episcopal missionaries, in consequence of some transaction respecting lands, in which they conceived themselves wronged. The offended parties proceeded to Pahia in order to demand redress; but on their arrival there, the missionaries were absent, and although the whole property was at their mercy, there being no one on the premises but females, they did not harm any thing, and declined to enter into any explanation until they had seen the missionaries. Taking their seats quietly at the gate, they awaited their return, which did not take place for some hours after, when they demanded an explanation of the supposed wrong, and atonement for it; and being satisfied, they departed without any molestation or injury whatever. It will, in all probability, be said that such patience was in consequence of the parties complained of being missionaries; but that could not well have been the case, for they are by no means popular with the natives, and the reason is, that the missionaries show very little regard for their own countrymen, which, in the eyes of a New Zealander, is a great crime.

From all I could gather, I am inclined to believe them an observant people, and that they would become an industrious one, were it less easy to provide themselves with the necessaries of life. They show much energy of character in their warlike pursuits, on which their whole minds seem yet to dwell. The spontaneous productions of their soil furnish them so easily with all that is required for their food and clothing, that there is no sufficient incentive to industry.

The New Zealanders are above the middle size, well formed, and athletic; they vary in colour from

a chestnut to a light copper; they have black hair, very thick and curly, which many suffer to grow long, while others crop it close. I saw few with whiskers, and their beards were light. The forehead is high, sloping backwards; the nose frequently aquiline and prominent; the eyes are black and piercing, but rather small; the tattooing gives a hardness of outline to the chiefs that is not so observable in the common people; they want, however, the softness of the rest of the Polynesian family, of which they are a part, not having the full muscles, or soft contour of face, which we had hitherto observed among the groups we visited. They are as indolent as the other cognate races, but more capable of undergoing fatigue.

The following is one of their traditions respecting their origin. The first natives came from Hawaiki, situated towards the east, in several canoes, and the names of some of the principal men were, Tanepupeke, Tanewitika, Taneweka, Rongokako, Kopaia, Kornaupoko: the canoes in which they came were called Kotahinui, Kotea-rawa, Kohorouta, Takitima. They settled first at Kawia, on the western coast; then near Maketu, Turanga, and Ahuriri, at the east cape. The natives, it may be as well to remark, say that this story is all nonsense, yet the similarity of the foregoing names with those of the people of Savaii, in the Samoan Group, is striking. This, connected with the story, which we shall hereafter quote, of the introduction of the kumara in canoes, taken together, would appear to afford very strong reason for the conjecture that they were derived from the same source. In their native traditions there appears to be some idea of a creation, having a general resemblance to that of the other nations of Polynesia.

The trade in native curiosities is not quite so great as it used to be, particularly in tattooed heads. So great at one time was the traffic in the latter article, between New Zealand and Sydney, that in 1831, it was prohibited by law. In Governor Darling's administration of the colony, the chief Shougi is supposed to have made large sums by it, and there are some persons who, in part, impute his wars to his desire of gain; for having been in England, he became acquainted with the value set upon them, and the demand for them. It is generally thought that many of the heads thus sold have been prepared by the white runaway convicts, who have learnt the mode of doing this from the natives. They are still to be obtained, though great precaution is used in disposing of them. A missionary brig, lying at the Bay of Islands, had many curiosities on board, in the possession of the steward; and after the buying of mats, &c., had been finished, he invited our officers to step down to his little store-room, under the fore-castle, where he had a curiosity which could not be brought out. After this mysterious enunciation, they followed him to the bottom of the ladder; he then told them he was about to put his fate into their hands, believing that they were too much men of honour to betray him. He then proceeded to inform them that he had two preserved heads of New Zealand chiefs, which he would sell for ten pounds. He could not venture, he said, to produce them on board the brig, but if they would appoint a place, he would bring them. The penalty for selling them was fifty guineas, and he conjured them to the

most perfect secrecy. These proved to be beautiful specimens, and now form a part of our collections. So effectually has the fine prevented this traffic, that it is an extremely difficult matter to obtain a head; they are as rare now as they have been common heretofore; and the last place in which it could have been expected to find them, would have been on board a missionary vessel.

The New Zealanders are still cannibals, although in the districts where the missionaries reside, they have done much to put a stop to this practice. After the arrival of our gentlemen, an instance occurred of a chief having killed a boy about fourteen years of age, as a medicine for his son, who was sick; and as this prescription did not effect a cure, a girl about the same age was to be served up, but the timely interference of the missionaries prevented it.

The present condition of the New Zealanders is inferior to that of some of the other Polynesian nation. There is, as in other places, little or no occasion for labour; the industry of a few weeks is all that is needed to supply them with food for the year; their traffic in pigs and other supplies to whalers and traders is quite sufficient to procure their necessary supply of clothing. It is said their moral condition has much improved of late, and that they are becoming sensible of the advantages of civilized life. In the former direction there is still great room for improvement, and the latter, I should think, as yet far above their ideas of honesty and of the obligations they owe to those about them. Perhaps those who have become somewhat attached to the Christian religion may be a little improved, but the only instance that we can recall to our recollections is that of the chief Ko-towatowa. The chiefs, however, in general show a growing disposition to acquire comforts about their dwellings, and in comparison with the other natives, are almost cleanly in their persons. Industry is also making progress in the cultivation of their plantations. If I could believe it possible that the dwellings of the lower classes of the people had ever been more filthy, or their persons less cleanly, I would more readily credit that some improvement had taken place. Numbers are said to be able to read and write their own language, having been taught by the missionaries, and then have afterwards been known to take a pride in instructing others, and to display a great eagerness in the acquisition of further knowledge; but they are far, very far behind, in the rudiments of education, the natives of other groups where the missionaries have been established, although, as respects natural capacity, they may probably rank higher.

There is much that is worthy of notice in the missionary operations here. They seem to have pursued a different course from that followed at the other groups, and appear to begin by teaching the useful arts, and setting an example of industry. This has given rise to much remark. The missionaries of the Episcopal Church appear to keep aloof from the natives, and an air of stiffness and pride, unbecoming a missionary in most minds, seems to prevail. They have a chapel at Pahia and one at Tipoonā, but very few persons attend; their native and Sunday schools have also very few scholars; and they appear to be doing but little in making converts. Most of the natives, however, have morning and evening prayers, but their practices

and characters show any thing but a reform in their lives. The missionaries hold large tracts of land, and about the Bay of Islands the Church mission (Episcopal) may be said to have the entire control of the property. At the missionary establishment at Pahia they have a printing-press, and have printed some parts of the Scriptures. They are now printing a New Zealand grammar. In the native traditions, there appears to be some idea of a creation, having a general resemblance to that of the other nations of the Polynesian groups. The first god was Maui, who fished up the earth out of the sun; afterwards a great flood came, which covered the land, and then the waters were dried up by another god, who set fire to the forest. From the accounts and observations of all, it may be safely asserted that the natives have no religion. Some few apparently follow the form of it, and call themselves professing Christians; but the majority or greater number of the natives have none, either Christian or pagan. When undergoing tuition by the missionaries, they are said frequently to stop and ask for a present for having said their hymn, and it is said, I know not with what truth, that the Catholic missionaries have been in the habit of giving them some small token in the shape of crosses, which the natives look upon as a sort of compensation.

At Kororarika, as has been stated, there is a Roman Catholic chapel, and it is the residence now of the bishop of the South Sea Catholic Mission. Some singular anecdotes are related of the natives, of their first joining one denomination and then another, receiving little articles as presents from each; indeed, it is said that there are few of them but conceive they ought to be paid for saying their prayers, or attending mass. At Hokianga there is also a Methodist or Wesleyan mission, which is generally considered the most active, and is doing a great deal of good.

The native pas are generally scenes of revelry and debauchery. My crew soon got tired of their visits to that of Pomare, and complained much of the dishonesty of the natives. Pomare and his suite paid the ship a visit a few days after our arrival, for the purpose of obtaining his quota of presents. I received him and all his retinue with kindness, and made him several presents, among which was a fowling-piece; but he had, in going round the ship, seen one of Hall's patent rifles, that loaded at the breech; and nothing would satisfy him but to exchange the gun I had given him for one of these. He surprised me by at once comprehending its facility of use, and its excellent manufacture. After a great deal of importunity, I consented to the exchange, but found that he was inclined, after having once succeeded, to beg every thing that struck his fancy. In this he was followed by the other chiefs, among the rest by Hoia, his brother. To the latter, I gave an old cocked-hat, which pleased him exceedingly, and I was not a little amused to see him wearing it, and dressed in a tight coat and vest, with bare legs, exhibiting one of the most ridiculous figures imaginable, although in his own opinion the beau ideal of elegance. Pomare went about the ship begging for military caps with gold bands, and was extremely importunate until he found that nothing more could be obtained. I by no means admired his appearance on this visit; for, although of good proportions, tall, and well made, he is awk-

ward and parrot-toed. His height and manner of walking make this defect more apparent, and he wants that dignity which is sometimes seen in a savage of our country. The New Zealanders, however, struck us as having a closer resemblance to our North American Indians than any others we had yet met with among the Polynesian nations. I was surprised to see how little respect was paid to the orders of Pomare by his followers, and was told that there is little authority acknowledged by those who are free. His slaves and wives are those who must sustain the burden of his wrath; their lives are at his disposal, and with them his will is law; they seem, however, to be treated kindly. Pomare is said to be entirely under the control of his favourite wife, of whom I have heretofore spoken. She is a far more respectable person than her husband, and was the most intelligent native I met with.

Wishing to see their war-dances, I requested Pomare to gratify us with an exhibition, which he consented to do. The ground chosen was the hill-side of Mr. Clendon, our consul's place, where between three and four hundred natives, with their wives and children, assembled. Pomare divided the men into three parties or squads, and stationed these at some distance from each other. Shortly after this was done, I received a message from him, to say that they were all hungry, and wanted me to treat them to something to eat. This was refused until they had finished their dance, and much delay took place in consequence. Pomare and his warriors were at first immovable: but they in a short time determined they would unite on the hill-top, which was accordingly ordered, although I was told they were too hungry to dance well. Here they arranged themselves in a solid column, and began stamping, shouting, jumping, and shaking their guns, clubs, and paddles in the air, with violent gesticulations, to a sort of savage time. A more grotesque group cannot well be imagined; dressed, half-dressed, or entirely naked. After much preliminary action, they all set off, with a frantic shout, at full speed in a war-charge, which not only put to flight all the animals that were feeding in the neighbourhood, but startled the spectators. After running about two hundred and fifty yards, they fired their guns and halted, with another shout. They then returned in the same manner, and stopped before us, a truly savage multitude, wrought up to apparent frenzy, and exhibiting all the modes practised of maiming and killing their enemies, until they became exhausted, and lay down on the ground like tired dogs, panting for breath. One of the chiefs then took an old broken dragoon-sword, and began running to and fro before us, flourishing it, and at the same time delivering a speech at the top of his voice. The speech, as interpreted to me, ran thus: "You are welcome, you are our friends, and we are glad to see you," frequently repeated. After three or four had shown off in this way, they determined they must have something to eat, saying that I had promised them rice and sugar, and they ought to have it. Mr. Clendon, however, persuaded them to give one of their feast-dances. The performers consisted of about fifteen old, and as many young persons, whom they arranged in close order. The young girls laid aside a part of their dress to exhibit their forms to more advantage, and they

commenced a kind of recitative, accompanied by all manner of gesticulations, with a sort of guttural hush for a chorus. It was not necessary to understand their language to comprehend their meaning, and it is unnecessary to add, that their tastes did not appear very refined, but were similar to what we have constantly observed among the heathen nations of Polynesia. Their impatience now became ungovernable, and hearing that the rice and sugar were being served out, they retreated precipitately down the hill, where they all set to most heartily, with their wives and children, to devour the food. This to me was the most entertaining part of the exhibition. They did not appear selfish towards each other; the children were taken care of, and all seemed to enjoy themselves. I received many thanks in passing among them, and their countenances betokened contentment. Although they were clothed for the occasion in their best, they exhibited but a squalid and dirty appearance, both in their dress and persons.

No native music was heard by any of our officers, and they seem to have little or none in their composition. In their attempts to sing the hymns, chants, or old psalm-tunes, they entirely failed to produce any thing like a resemblance. The pitch of their voices when speaking, is higher than that of Europeans, (the French excepted,) and that of the women was not a tone above, which gives additional coarseness to their character. Both sexes have but little intonation in conversation, and there are no tones heard which would indicate sympathy of feeling.

Chatham Island, which will probably soon be connected with the English colony of New Zealand, is now considered as a nest of rogues, and several vessels have been robbed there. Its inhabitants have a tradition that they are derived from New Zealand, whence their progenitors came about a century since, having been driven off in their canoes by a storm, and that on landing they had changed their language. The change consisted in reversing the ordinary construction of their phrases, and the syllables of words, as, for Hare-mai, Mai-hare; and for Paika, Ka-pai. The natives of Chatham Island are not tattooed, do not wear clothing, and are said to be more intelligent than their progenitors. They were conquered a few years ago by a party of New Zealanders from Port Nicholson, who had been driven out by the Kapiti tribes, under the celebrated Rauparaka.

An examination of the charts of the Bay of Islands was made, and some additional soundings added; the meridian distance, measured by our chronometers from Sydney, gave the longitude of the point opposite Mr. Clendon's wharf, $174^{\circ} 7' E.$; its latitude was found to be $35^{\circ} 17' S.$ The dip and intensity observations were also made here, and will be found registered with those results in the volume on physics.

Mr. Couthouy, who was left sick at Sydney, took passage in a vessel to Tahiti, and passed through Cook's Straits, touching at several of its anchorages. To his observations I am indebted for the following information relative to the southern part of these islands.

The first point they made was the Sugar Loaf Islands and Mount Egmont. The charts published by Clutz at Sydney, give also the height of this mountain as fourteen thousand feet, but this was

believed to be erroneous*, for only a small portion of the top was covered with snow. The day previous to their making land, they had been set to the northward by current about twenty miles in fourteen hours.

They next passed through Cook's Straits to Port Cooper, on the north side of Banks' Peninsula, where they anchored. This harbour is sheltered, except from the northerly winds, and is much frequented by whalers, who resort thither to try out the whale-blubber. The beach is in consequence strewn with the bones of these monsters. On going on shore, a party of three natives and their wives were found in a state of wretchedness and degradation,—their only clothing being an old blanket, disgustingly dirty, besmeared with oil and with a reddish earth which had been rubbed from their bodies, and a coarse mat of New Zealand flax; they depended for subsistence on a small potato-patch, and smoked fish; they lived in low huts formed of stakes, covered with mats, and thatched with grass in the rudest manner: their condition was but little better than that of the Fuegians. A fellow-passenger, who had seen the oldest man left of the tribe, stated that these were the remnants of a tribe that, but a dozen years before, could muster six hundred fighting men; they were all cut off, about ten years since, by the noted chief Robolua, residing near Cook's Straits. The old man appeared deeply affected whilst dwelling on the history of his people. The cupidity of the whites in this case, as in many others, had brought about, or was the cause of, this deadly attack; the particulars were as follow.

The master of an English vessel, by the name of Stewart, (the same person from whom the small southern island takes its name,) was trading along the northern island, and fell in with the chief, Robolua, who was then meditating an excursion to the south. Feeling confident that if he could come upon his enemies unawares their defeat was certain, he offered Stewart to load his vessel with flax, if he would transport him and his warriors to the place he wished to attack. The contract was readily entered into by Stewart, and the warriors were taken on board, and landed on various parts of the coast, where the inhabitants, taken by surprise, were butchered without mercy. Not less than fifteen hundred persons were cut off at this and the adjoining harbour of Port Levy, or Kikururapa. This Stewart is said to be still living on the northern island of New Zealand.

Many specimens of shells were obtained here, and a few presents, consisting of pipes and tobacco, were made to the remnant of this once powerful tribe. Two of their fellow-passengers intended to land here for the purpose of establishing themselves, but the place offered so little inducement that they determined to proceed to Port Levy, a larger harbour to the eastward, where the natives informed them that refreshments could be had in plenty. The next day they anchored in it, and found it somewhat similar to Port Cooper, but more open. In the afternoon a party went on shore, and returned with sixty-four brace of

pigeons, and three black parrots. The former were in great abundance and very large, some of them weighing twenty ounces: the colour of their backs was a dull slate, passing into bronze on the neck and wings; the head was very black, the breast white, deepening into a reddish brown on the belly, the bill and feet of a bright red. The parrots were quite black, about the size of a crow, and remarkable for two rose-coloured wattles at the lower mandible, like the common fowl. They also killed a species of pica, called *cuga* by the natives, about the size of a blackbird; it was of a dull black, with greenish reflections on the back, and on each side of the neck was a single white feather, which curled forward and upward.

Here they became acquainted with Charley, or Karakiharuru, the chief proprietor of Port Cooper, Port Levy, and Pigeon Bay. Notwithstanding these extensive possessions, neither himself nor his followers were better clad, housed, or superior in any respect to those already described. As for Charley himself, he appeared in a striped shirt, pea-jacket, and trousers, the cast-off clothing of some sailor. From having made the voyage to Sydney, Charley fancied he had seen the world, and took great pains to show his knowledge and excite the admiration of those about him. The captain of the vessel obtained from him about twenty bushels of potatoes, at the rate of a pound of tobacco for a basket containing about a peck; he besides offered to sell one-third of his dominions or estate for a new whale boat. Charley had on the usual heitiki or neck ornament. The only account he could give of the locality of this green stone was, that it was found to the southward, in a large bed between two mountains. Among other things in Charley's possession, was an enormous wax doll, dressed in the height of the Parisian fashion, which had been presented to him by the officers of a French expedition that had touched there, some time previously,—rather a droll occupant of a dirty New Zealand hut.

About Port Levy the land rises nearly twelve hundred feet high: the soil is every where exceedingly rich, but its value for agricultural purposes is diminished by its steepness; it would be impracticable to use cattle in ploughing. The land in all parts of the peninsula exhibited the same character: a succession of steep hills, intersected by deep and narrow ravines, clothed with a thick forest, except where they terminate on the coast, and form a tolerably level spot of a few acres in extent, available for cultivation. The forest consisted of an abundance of fine timber, principally the Kaurie pine, from one hundred and twenty to one hundred and thirty feet in height, and seven to eight feet in diameter. The fern was thick in patches, but in no great variety; some scandent and parasitic plants were met with, and a great number of flourishing ones observed; but Mr. Couthouy having no means for the purpose, was not enabled to secure any specimens. He remarked that the vegetation appeared much more luxuriant and diversified than that of any country he had seen since leaving Brazil. The soil is a rich black loam, composed of vegetable mould and decomposed basalt; the structure of the rocks decidedly columnar, exposing at the summit of the hills large masses of compact dark gray basalt, containing numerous crystals of olivine, pyroxene, and

* I have seen other authorities, which give its height at eight thousand feet.

other volcanic minerals. At the base of the hill, the rock was frequently a coarse cellular lava, and the beech was covered with boulders of all these varieties.

They next stopped at Pigeon Bay, but remained there only a few hours; the passengers who were in search of a position to establish themselves, found this quite as unfavourable as either of the two previous places.

In passing to the northward, towards Cape Campbell, the coast is high and broken, with no level land in the vicinity of the sea; but notwithstanding its abruptness, they found only fourteen fathoms of water at a distance of four miles from the shore, with sandy bottom. They had a fine view of the snowy peaks, called the "Lookers On," about twenty miles to the southward. These are supposed to be nearly as high as Mount Egmont, and tower up in sharp peaks, covered with snow for fifteen hundred feet from the summit. The land along this part of the coast is very rugged, is apparently unsuited for any kind of cultivation, and has no harbours. Off Cape Campbell, a line of rocks was seen extending to the eastward about a league, which do not appear on the charts; they are partly above and partly below water.

They then anchored in Cloudy Bay, which, contrary to the representation of the charts, proved a good anchorage. The wind here sweeps down the gullies in strong squalls, but the water is at all times smooth. There are five whaling establishments in Cloudy Bay, each employing from twenty to thirty hands, chiefly New Zealanders. The kind of whale taken here is principally the right whale, and the quantity of oil collected the previous year was four thousand five hundred barrels, which was sold on the spot to Sydney dealers, at forty pounds the tun. In addition to this quantity, five thousand five hundred barrels were taken in the bay, by whale-ships, principally Americans, from which some idea of its value to our countrymen may be formed. The establishments on shore have connected with them stores for supplying ships, where articles may be had at one hundred per cent. advance on the Sydney prices; potatoes are sold at thirty dollars the ton, and pork at twelve and a half cents per pound; boards and planks may also be obtained at fifty dollars per thousand; wood and water are purchased of the natives for muskets, powder and ball, blankets, pipes, and tobacco. It is also customary to make a present of two muskets, or an equivalent to Robolua, the chief, for harbour dues. A Mr. Williams, who was one of the establishments, furnished the above information.

Two American whalers were found here. A number of chiefs came off to the vessel, in the course of the day; they were fierce-looking savages, with coarse matted hair, tattooed visages, and bodies besmeared with red earth and oil; some of them were clad in coarse mats, others in blankets, and all exceedingly filthy; most of them had the heitiki ornament about their necks, and some in their ears, which were also decorated with red and white feathers, and the holes pierced in them were also made the receptacle of their pipes; others had necklaces of human bones, polished,—trophies of the enemies they had slain.

Their manners were uncouth, exhibiting none of that amenity so remarkable in the natives of the other Polynesian groups; yet there was a rude

dignity about them, that evinced a consciousness of their rank and consequence. Three or four women came on board, but not one of them could be called good-looking, and they appeared to care less about their appearance than the men.

The noted Robolua made his appearance at the breakfast-table, unannounced and uninvited; he most unceremoniously took his seat next the captain, remarking, "Me, Robolua!" In person, he is above the middle stature, powerfully built, and rather ill-featured. The usual expression of his countenance is not bad, but when enraged, it is truly fiendish, and his small deep-sunk eyes, which betoken cunning, gleam with the ferocity of a tiger. His head is of enormous size, covered with long matted hair, sprinkled with gray; his eyebrows were long and shaggy; he had a bad expression of the mouth, resulting from the loss of his teeth, a circumstance of rare occurrence among these natives. He seemed in feeble health, and his figure was slightly bent by age; he wore a filthy blanket, and over it an old-fashioned plaid cloak, the colours of which, like those of his under garments, were no longer distinguishable. All the chiefs wore their dress so as to cover their left arm, and leave the right bare, which Mr. Williams said was for the purpose of concealing their meara, or stone cleaver, which is constantly suspended to the left wrist, ready, at a moment's warning, for use, and which they take particular care never to expose to view.

With Robolua was his principal warrior, Oranga-dieti, a fine specimen of a savage chieftain, about fifty years of age, with a noble though fierce cast of countenance, nearly six and a half feet in height, and as straight as an arrow; his long hair was tied up behind, *à la Grecque*, the knot being secured by two long black feathers stuck through it; altogether he had more the appearance of a chief than Robolua; the latter, from the account Mr. Williams gave of him, owes his ascendancy more to his powers of persuasion in council, and his talents for strategy in their system of warfare, than to his warlike achievements; and he seldom risks his person in battle. The chiefs, in their figurative language, say, "The breath of Robolua can turn them round and round, and his tongue is more powerful than any of their weapons." He was originally a petty rangatira (landholder). Of late years his power had very much declined: five or six years ago he could number more than six thousand warriors, but now he has not over four hundred. His rapid rise is imputed to the introduction of fire-arms, for he was long the only chief who possessed any number of them; and the decay of his power is attributed to the acquisition of this weapon by others, and the inactivity arising from his advancing age. Several of the natives who were met here could read, and a portion of the Testament was seen in their possession; two women in particular were desirous of showing their accomplishments, and remarked that the missionary religion was not made for New Zealanders; it was too good for them. Drunkenness and dishonesty prevail, by their own confession, among the white men, who are at times entirely beyond the control of their masters; they all have native wives, who are taken and discarded at pleasure.

The whalers stated that the prevailing winds at Cloudy Bay in summer and the beginning of autumn, from November to March, are from the

south-east and north-west, which usually succeed each other at short intervals; during the rest of the year, winds from south round to west are more frequent, and bring with them wet weather.

The general information which we obtained, and which has not been included in the preceding portions of the chapter, is as follows:

The climate of New Zealand is extremely changeable; but although it may be considered as the cause of many diseases among the natives, it is, perhaps, the best suited to a European constitution of any in the South Seas. A large quantity of rain falls during the year, but I was unable to obtain any record of its exact amount. The temperature at Kororarika, during the months of February and March, varied from 53° to 78°, and the mean was 64.2°. In the sun the thermometer rose as high as 110°. The principal prevailing winds are from the south-east and west; the former are frequently in squalls, and attended with rain: May and June are the rainy months.

Warm days are often succeeded by cold nights, which give rise to pectoral diseases among the natives, many of whom are affected by phthisis, or swept off by rapid consumptions. They are also liable to rheumatism and pleurisy. European and American residents, who enjoy better food and clothing, and inhabit more comfortable dwellings, are exempt from these complaints. Measles, hooping-cough, and other epidemics, have been introduced from foreign vessels. While we lay at the Bay of Islands, the influenza prevailed on shore and was communicated to our crew. The venereal disease, propagated by their licentious habits of life, and unchecked by medicine, is rapidly reducing the numbers of the natives.

The greater part of the soil of the portion of New Zealand which fell under our observation is too sterile to be profitably employed in agriculture. It consists, in general, of an obdurate yellow loam, capable of bearing little else, after it is cleared of trees and brushwood, than the fern (*pteris esculenta*). Where the soil is volcanic, however, it is comparatively fertile; but this description of ground is rare.

Wheat and other grains are raised, and the fruits and vegetables of temperate climates succeed well. The hills are almost bare of vegetation; for after the ground is cleared, the heavy falls of rain sweep the soil from them into the valleys, and wear the hill-sides into gullies. In this manner patches of good land are formed in them, which, however, rarely exceed fifteen or twenty acres in extent. The only continuous level tract of as much as a hundred acres, is on the farm of Mr. Clendon on Manawa Bay. The sterility of the soil is not the only obstacle the agriculturist has to contend with. The fern, of which we have spoken, springs up the moment the forest is removed, and covers the land with a dense vegetation. Ploughing is not sufficient to extirpate it, for it will spring again from the severed roots, and choke the grain. It can only be completely eradicated by removing it by hand and burning it. The ashes are then spread upon the ground, and are found to be a good manure. In this manner the sons of Mr. Williams, the missionary at Pahia, are endeavouring to bring a farm they possess into cultivation. Natives are employed in the labour, and they have in this way cleared several acres.

The fern from its size and strength, is supposed to indicate a fertile soil; but this is not the fact, for I have seen nearly a thousand acres in a body covered with a growth of it six feet in height, where the ground was deemed fit for no purpose but to furnish brick-clay. So densely do the ferns grow, that it is impossible to force a way through them, and the only mode of traversing the country where they abound, is by following the native paths; these pursue the high ground and ridges, and have branches which lead to the neighbouring cultivated spots. The moment the culture of the land is neglected, the fern again makes its appearance.

The clayey soils afford only a scanty growth of grass, which is scarcely fit for pasture, and indeed there appear to be no native grasses. In the more fertile soils, red clover, according to Mr. Brackenridge, does well; and he believes that white clover would succeed on the hills, which are now bare. The climate is favourable to the growth of the foreign grasses.

After the fern has been burnt and the ashes spread, a crop of wheat is raised, and the land is laid down in grass. To give an idea of the produce of land near the Bay of Islands, we may cite the instance of Captain Wright's farm, which is eligibly situated, and is considered as possessing a fertile soil. He had twenty acres in wheat, whose average product was only fourteen bushels per acre.

Among the foreign fruits which have been introduced, are apples, peaches, and grapes. The latter grow best in the volcanic soils, but the climate is considered to be too moist to permit them to attain perfection. The peaches are fine, but the propensity of the natives to pluck them before they are ripe prevents them from attaining their full flavour. Cape gooseberries are plentiful, but the common description of that fruit, and the currant, have not been introduced. Late writers have given marvellous accounts of the growth of the fruit-trees of temperate climates, in New Zealand; but these may be set down as exaggerations calculated to mislead, and intended to subserve speculation. The success of Captain Wright, however, in raising fruit and vegetables, has been great.

Among the native vegetables is the sweet-potato, which they call *kumara*: it is plentiful.

The missionaries stated that the natives have a remarkable tradition in relation to this root; namely, that it was first brought to the island in canoes of a different construction from their own, and composed of pieces of wood sewed together.

Cook left the common potato, which has been cultivated ever since his visit, and is now plentiful.

The native hemp (*phormium tenax*) is a most useful plant; it grows in large quantities, and is applied by them to many purposes, besides being a principal article of foreign trade. It is an important material in the construction of their houses, for which purpose it is made into cords, that are also employed for other more common uses. It is manufactured into fine fishing-lines, which are much prized at Sydney for their strength and beauty.

The manufacture of the hemp is altogether performed by the women, who cut it, and after it has been dried a little, divide it into strips of about an

inch in width. The outer green fibres are then scraped off with a piece of glass, or a sharp shell. The inner fibres being thus exposed are easily separated, and the greatest care is taken to keep all the fibres as straight as possible, both in this and the following operations. To this precaution the great strength of the cordage the natives make of it, is owing. After the fibres are separated, they are washed, rubbed, and laid in the sun to bleach.

The vegetation of New Zealand is of a fresher and deeper green than that of New Holland, and has some resemblance to that of Terra del Fuego. According to the missionaries, the ridges, and indeed the greater part of the northern island, are destitute of trees; and the woods, which are confined to the valleys, are for the most part in detached spots. The western part of this island contains more actual forests than the eastern.

It was remarked by our botanists that trees of genera which in other countries grow in the more barren soils, are found in New Zealand in those which are fertile. This is in particular the case with the pine tribe. It also appeared to them, from the position of isolated trees, and the quantity of Kaurie-gum found imbedded in the soil, that forests had formerly been more generally spread over the face of the country, than they are at present.

The gum which has just been spoken of is still produced by the Kaurie pine, which is the finest of the timber-trees of New Zealand. The greatest portion of that which is shipped from the island is dug from the ground. Small quantities of the latter description have been purchased by our countrymen, and shipped to the United States, where it was manufactured into a varnish. This was of a good quality, and was afterwards sent to New South Wales and New Zealand, where it is sold for copal varnish.

The Kaurie and Kaikotia pines yield spars which for large ships are not surpassed by any in the world. The trees are generally large, and are easily brought to the coast by means of the numerous streams.

The natives use these trees in building their canoes, which are dug out of a single log. They have no out-rigger, and are in consequence liable to accident from want of stability. Great ingenuity is shown in repairing them. We saw a war-canoe which was sufficiently large to be manned by fifty men; it had a prow extended ten feet upwards, which was elaborately carved and decked with tufts of feathers. The paddles have spoon-shaped blades, by which the canoes are propelled with great swiftness.

No native quadrupeds were found wild in New Zealand. Cattle have been introduced, and thrive. Those which are imported require to be fed, but

those raised in the country can provide for themselves, and grow fat by browsing.

Among the birds are the native nightingale and the tui, also known under the sobriquet of the parson-bird. The latter is a great favourite with the natives.

I saw it only in a cage, and its note did not strike me as pleasing, but several of our gentlemen saw and heard it in the woods; they describe its note as rather louder than that of the bird called by the Samoans "poe," and it is at times said to utter a cry resembling the sound of a trumpet.

The domestic fowl does not appear to have been known before this island was visited by white men.

I made inquiries in relation to the mode in which birds were taken in this country before the introduction of fire-arms, but could not obtain any satisfactory information. I was inclined to think that the natives had no method of doing this in former times.

The great staple articles of trade are flax, spars, and wheat; potatoes and gum are also exported; but the whale-fishery is of more value at present to foreigners than all the productions of the soil. This is carried on from the shores by parties of New Zealanders and foreigners; but they are rapidly destroying this source of wealth, for, as has been stated, their eagerness for present gain leads them to destroy the animals whether old or young, without discrimination.

The whaling establishments of British subjects on the coast are numerous, and the most disgraceful acts are perpetrated by their occupants and by the crews of the whale-ships, who not only use violence against the natives, but against each other. As New Zealand is in the immediate vicinity of the whaling-ground, it is a desirable rendezvous for our whalers; and the American whaling fleet, actively employed on the coast in the spring of 1840, amounted to one hundred sail.

Many spars are now exported to England, where, however, the smaller sticks are not as much esteemed in proportion as the larger ones. Several government vessels have recently obtained spars for the royal navy at the trifling cost of a few blankets and muskets. The latter, in particular, are a great inducement to the chiefs, who are willing to devote much labour for the purpose of acquiring the means of rendering themselves powerful. Besides guns and blankets, gunpowder, lead, coarse blue and white cottons, whiskey, rice, sugar, and molasses are the articles most in request. These now bring enormous prices, in consequence of the demand caused by the number of immigrants; but the effect of these prices is to render labour proportionably dear.

CHAPTER XXI.

TONGATABOO.

DEPARTURE FROM NEW ZEALAND—CAPE BRETT—HALO AND PARHELIA—SUNDAY ISLAND—SHIP "TOBACCO-PLANT"—WATER-SPOUTS—ARRIVAL AT TONGATABOO—THREATENED WAR—OFFERED MEDIATION—LANDING AND RECEPTION—NATIVE WARRIORS—KING JOSIAH—KING GEORGE—COUNCIL CALLED—ITS PROCEEDINGS—CAUSE OF HOSTILITIES—AMBITION OF KING GEORGE—MESSENGER SENT TO THE HEATHEN PARTY—TOWN OF NUKUALOFA—MR. AND MRS. TUCKER—KING GEORGE'S TOWN—HIS HOUSE AND FURNITURE—RETURN OF THE MESSENGER—ARRIVAL OF THE HEATHEN CHIEFS—FEELINGS OF THE HEATHEN OF TONGA—MUMUI—ENGLISH SCHOONER "CURRENCY LASS"—DEPARTURE OF THE HEATHEN CHIEFS—VISIT OF THE KING TO THE VINCENNES—THEIR CANOE—CANOES OF THE TONGESE—BOAT-SONG—NATIVE MUSIC—INTERVIEW WITH THE KINGS—FAILURE OF THE MEDIATION—VISIT TO MOA—RELIGION OF THE HEATHENS—NATIVES OF ROTUMA—APPEARANCE AND DRESS OF THE TONGESE—THEIR CHARACTER—TAMAHAA—SPORT OF RAT-CATCHING—FEEJEE WARRIOR—COUNCIL OF WAR—POPULATION OF THE ISLANDS—MISSIONARY OPERATIONS—FEATS OF THE TONGESE IN SWIMMING—GEOLOGICAL STRUCTURE OF TONGA—VEGETATION—CULTIVATION—PRODUCTIONS—CLIMATE—DISEASES—MODE OF TRAFFIC—ARRIVAL OF THE PORPOISE—NATIVE PILOTS—ARRIVAL OF THE PEACOCK—HER REPAIRS AT SYDNEY—DIFFICULTIES ATTENDING THEM—PASSAGE OF THE PEACOCK FROM NEW SOUTH WALES—ROYAL FAMILY OF TONGA—TERMINATION AND RESULT OF THE WAR—CASE OF THE FEEJEE WOMEN—TOM GRABBY.

HAVING completed such repairs as were necessary, the Vincennes, with the Porpoise and Flying-Fish in company, sailed from the Bay of Islands on the 6th April, 1840, for Tongataboo. I believe that no person in the squadron felt any regret at leaving New Zealand, for there was a want of all means of amusement, as well as of any objects in whose observation we were interested.

We had at first a light breeze from the northward and westward, followed by a calm, after which the wind came round to the southward. The weather was remarkably pleasant.

Cape Brett, according to our observations, is erroneously placed in the charts, which make it forty-two minutes too far to the eastward. We experienced after sailing a current of eight miles to the northward in twenty-four hours. On the 8th April, the current set north-east-by-north, half a mile per hour.

On the 9th, the sea was very smooth, and the day calm; and we not only tried the current, but the distance below the surface at which a white object was visible. The sun's altitude was observed at the same time.

I was desirous to pass over the positions of some of the doubtful shoals, and to verify the longitude assigned to Sunday Island (the Raoul of D'Entrecasteaux). Had this not been my design, I should have preferred pursuing a more eastern route than I did, which I am satisfied would have shortened our passage to Tongataboo. I do not conceive, however, that there is any difficulty in reaching that island, or any risk of falling to the leeward of it at this season of the year, for westerly winds prevail in its neighbourhood. We had a light wind from north-east to east-north-east.

On the 11th April, we had reached latitude 20° S., longitude 178° W., and had on that day a most beautiful halo. It was formed at first of the segments of two great circles, the chords of which subtended an angle of 54° . These gradually united, and formed a circle around the sun, whose diameter measured 42° .

The parhelia were very distinct, and had spurs on their outer sides; two points in the vertical plane intersecting the sun, were very bright, but did not form parhelia; the sun's altitude was $29^{\circ} 20'$: no decided clouds were to be seen, but the whole sky was hazy, and the wind fresh from the north-east. About two hours after this phenomenon, much lightning occurred, with torrents of rain, but no thunder, and this continued throughout the night. The barometer stood at 29.99 in.; thermometer $71^{\circ} 75'$. The weather by six in the morning had cleared, and we had the wind light from the westward. The clouds were seen flying rapidly from the north-east.

On the 13th the wind still continued from the southward and westward, but light clouds were still flying from east-north-east, and the sea was rough and uncomfortable. We had passed over the place assigned to the Rosetta Shoal, and I believe I may safely state it does not exist in that place.

On the 14th we made Sunday Island, the Raoul of D'Entrecasteaux. It is high and rugged, and had every appearance of being volcanic; the rocks rise like basaltic columns. The island affords no anchorage, and the wind being light, I was not able to get near enough to send a boat to land and procure specimens; the sea, also, was very rough. Sunday Island, according to our observations, lies in latitude $29^{\circ} 12'$ S., and longitude $178^{\circ} 15'$ W., which agrees well with its established position; it is said to be inhabited by a few white men, and some of the officers reported that they saw smoke.

On the 15th, we fell in with the Tobacco Plant, American whaler, Swain, master, that left the United States about the same time we did. She had not been very successful. A singular circumstance is connected with this ship during her cruise: H.B.M. ship Herald, Captain Nias, whom we met in Sydney, picked up, several months since, off Java Head, four hundred miles from land, a whale-boat, with six men, who reported to Captain Nias that they had left the ship Tobacco Plant,

which had been burnt at sea. They were taken on board the *Herald*, most kindly treated, brought and landed in New South Wales. The crew of the *Herald* presented them with 100*l.*, and Captain Nias allowed them to sell their boat; besides all this, they were amply supplied with clothes. This report of the loss of the ship seemed placed beyond contradiction, and to meet her afterwards caused us great surprise. A day or two after we had lost sight of the ship, a man whom I had taken on board as a distressed seaman, confessed that he had deserted from her, and also informed us that the six men had left the ship at sea in an open boat, in consequence of the ill treatment they had received from the captain, and the short allowance of provisions on board. The manner in which they carried on their deception upon Captain Nias, his officers, and crew, was remarkable, and shows how much commiseration all classes of men feel for those in distress, and how unwilling they are to scrutinize a tale of sorrow, when they have the apparent evidence before them of its truth. These men were upwards of twenty days on board the *Herald*, and yet I was told that they were throughout consistent in their account of the alleged misfortune, and apparently showed much proper feeling for the fate that had befallen their companions.

Until the 19th we had light breezes; in the afternoon of this day we saw the appearance of a waterspout, forming about half a mile from the ship; the water was seen flying up, as if from a circle of fifty feet in diameter, throwing off jets from the circumference of the circle, not unlike a willow basket in shape, and having a circular motion from right to left; there was a heavy black cloud over it, but no descending tube; and it did not appear to have any progressive motion. Desirous of getting near, I kept the ship off for it, but we had little wind; the cloud dispersed, and the whole was dissipated before we got near to it. The electrometer showed no change.

The next day, the 20th of April, in latitude 24° 26' S., longitude 174° 47' 30" W., we took the trades from about east: passed over the position assigned to the island of Vasquez, but saw nothing of it. Some appearance of land existing to the eastward, the Porpoise was despatched to look for it.

On the 22nd, we made the island of Eooa, and that of Tongataboo. The wind the whole day was very variable, with squalls and heavy rain; and it being too late to run through the long canal that leads to the harbour, I deemed it most prudent to haul off for the night. A southerly current drove us further off than I anticipated, and we did not succeed the next day in regaining our position; we experienced much lightning and rain, with the wind strong from the eastward. On the 24th, at 1 P.M., we rounded the eastern end of Tongataboo, and stood down through the *Astrolabe* canal. This is a dangerous passage, and ought not to be attempted when the wind is variable or light; it is nine miles in length, and passes between two coral reefs, where there is no anchorage; it was at the western end of it that the *Astrolabe* was near being wrecked in 1827. It is from half to one mile wide, gradually narrowing, until the small island of Mahoga appears to close the passage. When nearly up to this island, the passage takes a

short and narrow turn to the northward; in turning round into this pass, I was aware of a coral patch, laid down by the *Astrolabe*, and hauled up to avoid it, by passing to the eastward; but the danger was nearer the reef than laid down, and the sun's glare being strong, we were unable to see it, and ran directly upon it. For a moment the ship's way was stopped, but the obstacle broke under her, and we proceeded on to the anchorage off Nukualofa, the residence of King Josiah, alias Tubou. In our survey of the above passage, no shoal was found in the place where the ship had struck, and we had the satisfaction of knowing that we had destroyed it without injury to the vessel.

The tender had arrived before us, and I found also here the British vessel *Currency Lass*. This harbour, when it is reached, is a safe one, and is well protected by the reefs.

Nukualofa is a station of the Wesleyan Mission, the heads of which, Messrs. Tucker and Rabone, paid me a visit, and from them I learnt that the Christian and Devil's parties were on the point of hostilities; that Tanfaahau or King George, of Vavao, had arrived with eight hundred warriors, for the purpose of carrying on the war, and putting an end to it.

The islands of Tongataboo and Eooa are the two southern islands of the Hapai Group (the Friendly Isles of Cook); the former is a low, level island, while that of Eooa is high. The highest part of Tongataboo is only sixty feet above the level of the sea, while that of Eooa rises about six hundred feet; the strait between them is eight miles wide. Tonga is extremely fruitful, and covered with foliage, and contains ten thousand inhabitants; while that of Eooa is rocky and barren, and contains only two hundred inhabitants.

Believing that I might exert an influence to reconcile the parties, and through my instrumentality restore the blessings of peace, I proffered my services to that effect, which were warmly accepted by the Reverend Mr. Tucker. I therefore sent a message to the chiefs of the Christian party, to meet me in fono in the morning, and late at night received a notice that they would be prepared to receive me. On the morning of the 24th, I landed, with all the officers that could be spared from other duties; we were received on the beach by Mr. Tucker, and were at once surrounded by a large number of natives. It was impossible not to be struck with the great difference between these people and those we had just left in New Zealand; nothing of the morose and savage appearance so remarkable there, was seen; here all was cheerfulness and gaiety; all appeared well-fed and well-formed, with full faces and muscles. The number of children particularly attracted our notice, in striking contrast to the New Zealand groups, where few but men were seen. In a few minutes we heard the native drum, calling the warriors and people together; we went a short distance along the beach, passed into the fortification, and up a gentle acclivity, on the top of which is now the Mission church, and the house of King Tubou. On our way up we passed by the drum, or as it is here called, *toki*, which is a large hollow log, not unlike a pig-trough, made of hard, sonorous wood; it is struck with a mallet, shaped somewhat like that used by stone-cutters; it gives a sound not

unlike a distant gong, and it is said may be heard from seven to ten miles.

From the top of this hill (sixty feet high, and the most elevated point on the island) there is an extensive view, over the island on one hand, and on the other over the encircling reefs and the deep blue sea. I felt familiar with the scenes around me, from the description I had often read in Mariner's Tonga Islands, and feel great pleasure in confirming the admirable and accurate description there given. The names we heard were familiar to us, and we found, through the natives and missionaries, that many of the descendants of the persons of whom he speaks were present.

I was within the fortification of Nukualofa, the scene of many of the exploits which Mariner relates. I was now surrounded by large numbers of warriors, all grotesquely dressed and ready for the fight, with clubs, spears, and muskets. In addition to the usual tapa around their waist, they had yellow and straw-coloured ribands, made of the pandanus-leaves, tied around their arms above the elbows, on their legs above and below the knees, and on their bodies: some had them tied and gathered up in knots; others wore them as scarfs—some on the right shoulder, some on the left, and others on both shoulders. Some of these sashes were beautifully white, about three inches wide, and quite pliable. Many of them had fanciful head-dresses, some with natural and others with artificial flowers over their turbans (called sala); and nearly all had their faces painted in the most grotesque manner, with red, yellow, white, and black stripes, crossing the face in all directions. Some were seen with a jet black face and vermilion nose; others with half the face painted white. When a body of some eight hundred of these dark-looking, well-formed warriors, all eager for the fight, and going to and fro to join their several companies, is seen, it is hardly possible to describe the effect. The scene was novel in the extreme, and entirely unexpected, for I considered that we were on a mission of peace. A few minutes' conversation with Mr. Tucker accounted for it all. The evening before, the "Devil's" party, it appeared, had attacked their yam-grounds; some of the natives were wounded on both sides; and great fear had been entertained that they would have followed up their attack even to the town of Nukualofa; most of the warriors had, therefore, been under arms the whole night.

We were led through all this confusion to the small hut of Tabou or King Josiah: here we were presented to his majesty, with whom I shook hands. He was sitting on a mat winding a ball of sennit, which he had been making, and at which occupation he continued for the most part of the time. He has the appearance of being about sixty years old; his figure is tall, though much bent with age; he has a fine dignified countenance, but is represented as a very imbecile old man, fit for any thing but to rule; as domestic and affectionate in his family, caring little about the affairs of government, provided he can have his children and grandchildren around him to play with, in which amusement he passes the most of his time. Seats were provided for us from the missionaries' houses, and were placed in the hut, whose sides being open, gave us a full view of all that was passing without. King Josiah, with his nearest

relatives and the highest chiefs, about ten in number, occupied the hut, together with the missionaries and ourselves. The warriors were grouped about in little squads, in their various grotesque accoutrements.

When all was apparently ready, we waited some few minutes for King George. When he made his appearance, I could not but admire him: he is upwards of six feet in height, extremely well proportioned, and athletic; his limbs are rounded and full; his features regular and manly, with a fine open countenance and sensible face; all which were seen to the greatest advantage. The only covering he wore was a large white tapa or gnato, girded in loose folds around his waist, and hanging to the ground, leaving his arms and chest quite bare. He at once attracted all eyes; for, on approaching, every movement showed he was in the habit of commanding those about him. With unassuming dignity, he quietly took his seat without the hut, and as if rather prepared to be a listener than one who was to meet us in council. This was afterwards explained to me by Mr. Tucker, who stated that King George is not yet considered a native chief of Tonga, and, notwithstanding his actual power here and at Vavao, is obliged to take his seat among the common people. On observing his situation, and knowing him to be the ruling chief *de facto*, I immediately requested that he might be admitted to the hut; and he was accordingly requested to enter, which he did, and seated himself at a respectful distance from the king, to whom he showed great and marked respect.

Mr. Rabone, the assistant missionary, was the interpreter, and the conversation or talk that passed between us was in an undertone. The peculiarity of figurative speech, common to all the islanders, was very marked in King George, affording a condensed, or rather concise mode of expression, that is indicative of sense and comprehension. They began by assuring me of the pleasure it gave them to see me, when they were just about going to war, and were in much trouble. I proposed myself as a mediator between the parties, and that each party should appoint ten chiefs, to meet under my direction and protection, in order to arrange all the difficulties between them; that these should meet on neutral ground, on the island of Pangai-Moutu, about half-way between the heathen fortress of Moa and Nukualofa. I also offered to send officers or go myself to the heathen fortress, to make a similar request of them. With all this they appeared pleased, but in answer to it King George simply asked, "Will they ever return?" After a little conversation, they assented to my propositions. I then took the occasion to rebuke them mildly for allowing their followers to assemble in their war-dresses, and with so many warlike preparations on such an occasion, telling them that I thought it indicated any thing but the peaceful disposition, in the belief of the existence of which I had called the meeting. The affair concluded by their leaving the whole matter to my discretion, and with an assurance that they would conform to my decision. During the half hour spent in this conference, the whole multitude outside seemed as though they were transfixed to the spot, awaiting in anxious expectation the result. As King Josiah (who it seems is exceedingly prone to somnolency) was now seen to be nodding, I

judged it time to move an adjournment, and the council was broken up.

All now became bustle and apparent confusion; every one was in motion; the whole village, including the women and children, carrying baskets, hoes, sticks, &c., besides their arms and war instruments: all were going to the yam-grounds, expecting an engagement with the heathen. It had a fine effect to see them passing quickly through the beautiful cocoa-nut groves, in companies of fifteen to twenty, in their martial costumes, painted, belted, and turbaned,—some of the finest specimens of the human race that can well be imagined, surpassing in symmetry and grace those of all the other groups we had visited. The fashion of their warlike dress is changed for every battle, in order to act as a disguise, and prevent them from being known to the enemy, but yet they are readily distinguished by their own party.

Anxious to know the actual cause of the war, I made every inquiry that was in my power, and satisfied myself that it was in a great measure a religious contest, growing out of the zeal the missionaries have to propagate the Gospel, and convert the heathen. With this is combined the desire of King George, or Taufaahau, who is already master of Hapai and Vavao, to possess himself of all the islands of the group. About three years prior to our visit, a war had broken out in Tonga of a similar character, and the Christian party being hard pressed, sent to ask the aid of King George, who came, relieved them, and defeated their enemies. Mr. Rabone, the missionary above spoken of, was residing at Hihifo, a town or fortress on the west end of the island, where he converted a few of the natives, who were required to remove from the district by the *ata*, which is the title the governor of the district bears. They refused, as they asserted their lands were all there, and they wished to remain. About the same time, Mr. Rabone thought proper to shoot one of their sacred pigeons, which incensed the people against him; for if a native had committed the same act, he would have been clubbed, and as he himself confessed he knew their superstitious feeling for this bird. Mr. Rabone, in consequence of this occurrence, was obliged to remove to Nukualofa. The heathen also complained that their temples were desecrated, their customs broken in upon, and their pleasures destroyed by the Christian party, who endeavoured to interdict their comforts, and force laws upon them in the shape of taboos through their king; that they even prohibited the smoking of tobacco, an innocent pleasure, which the natives have long been accustomed to, and take great delight in, but which is now forbidden by royal ordinance to the Christian party, and any infraction of the law severely punished. The heathen now said that they could no longer endure these acts, and were determined to resist them by retaliation, and prevent the further propagation of the Christian religion.

The natives who had renounced heathenism, and joined the Christian party, finding they were not permitted to remain at Hihifo, retired to a short distance from it, and built themselves a small fortress, which the *ata* finally blockaded. The Christian party now sent for aid to Nukualofa, and having enlisted the feelings of the missionaries and their adherents in the cause, they sent a

message for King George, who again came with a large force from Hapai and Vavao to their assistance. On his arrival, a long conference ensued, in which the *ata* expressed himself desirous of treating for peace, and proposed that a conference should take place in his fort.

To this King George assented, and proceeded to the small Christian fortress in the vicinity of Hihifo, where it is said he was met by a deserter from Hihifo, who told him that the only purpose of inviting him to a conference there was to assassinate him and his chiefs. This story was said to have been confirmed from other sources, but this additional evidence seemed far from being satisfactory. King George immediately resolved to invest and storm the fortress of Hihifo; and, for the purpose of diminishing the enemy's strength, had recourse to a singular stratagem. He directed all of his men who had any friends or acquaintances in Hihifo, and of these there were many, to advance towards the walls, and each one to call to his relation, friend, or acquaintance within, and assure him of safety if he would desert! This had the desired effect, and a great many persons, forming a large part of the garrison, jumped over the wall, and joined the besiegers. The remainder, being weakened and disheartened, surrendered. Thus the difficulty ended for the present, the rest of the heathen not having yet joined in the affair, although it was said they were fully prepared for hostilities. King George now re-embarked, to return home with his warriors, sailing for Honga Tonga and Honga Hapai, which is the route taken in their voyages when going back to Vavao.

The following account of the resolution he took there was derived from King George, through Mr. Tucker, and clearly proved to my mind that his object now was to enlarge his dominions, by adding to them the island of Tonga. "Here he reflected upon the subject of his departure, and the defenceless state of King Josiah or Tubou; and he was so forcibly struck with his danger, and that of the missionaries, that he resolved to return, and remain at Nukualofa until the heathen were finally subdued." We, in consequence, found him established, building and fortifying a town, and his forces daily arriving from Vavao and Hapai. Indeed his whole conduct did not leave us any room to doubt what his intentions were, and that the missionaries and he were mutually serving each other's cause. I mentioned my suspicions, relative to King George's ambition, to the missionaries, and how likely it would be to prevent any reconciliation or peace with the heathen, and was much surprised and struck with the indifference with which Mr. Rabone spoke of the war. He was evidently more inclined to have it continue than desirous that it should be put a stop to; viewing it, in fact, as a means of propagating the Gospel. I regretted to hear such sentiments, and had little hope, after becoming aware of them, of being instrumental in bringing about a peace, when such unchristian views existed where it was least to be expected.

On consultation, Eliza Anne Tubou was selected as the most proper messenger of peace that could be sent, and the only one indeed who could go with safety. She is the daughter of Faatu, the heathen chief of Moa, one of the largest heathen fortresses; is married to a chief of the Christian party. She

is a fine intelligent-looking woman, with good sense and much good feeling, and entered warmly into the arrangements. She was despatched with a written proposal for the conference, and was to return the next day. She is called the *sacred daughter*, and goes where she likes without being molested.

After the council was over, I went with Mr. Tucker to the missionary houses, passing through the town (if so it may be called), composed entirely of reed huts, of small dimensions, and enclosed with wicker-work fences. The missionary houses are on the outskirts; the whole contains about six hundred houses; and on looking into a few, they did not appear to be very cleanly. The houses are built after the fashion of the Samoans, only the sides are of wicker-work, made of the slender sugar-cane. The dwellings of the missionaries are very like those of the better sort, and are within an enclosure; and the only difference I observed was, that they had glazed windows. Like the others, they had no floors, and the earth was covered with mats.

Mrs. Tucker, whom we found exceedingly intelligent, gave us a kind welcome. She has for some time been the principal instructress of both old and young: I can myself vouch for the unexpected proficiency of some of her scholars in speaking English. To her and her husband I feel much indebted for their answers to the many inquiries respecting the state of things in the island,—the employments and character of the natives, their wars, manners, and customs. They appeared indefatigable in their exertions for what they considered the good of the natives; among other things, they have endeavoured to introduce a variety of vegetables and fruits: cabbages, turnips, and mustard were seen; among the fruits, were pine-apples and custard-apples, which thrive well; oranges have been introduced, but do not succeed, because they are injured by an insect, which leaves its larvæ on the fruit, and causes it to fall before it reaches maturity. They are obliged to pull all their fruits before they are ripe, in consequence of their liability to destruction by the ants, if left to ripen on the tree.

King George, or Taufaahau, is building his town near by, just without the fortification of King Josiah: it is an enclosure of four hundred yards square; the fence consists of close wicker-work, made of the small sugar-cane, and in order to make it stronger, several thicknesses are put together: this makes a more effective defence than one would imagine; it is about eight feet high, and trimmed off on the top, and when new has a very pretty appearance. The permanency and arrangement with which the town is laid out, make Taufaahau's intentions quite evident. The avenues cross the square diagonally, the gates being at the corners, and in the centre is a large area, left for a chapel.

The houses of King Josiah's or Tubou's town are mostly within the fortress; this is a high mud wall or embankment, on the top of which is a wicker-work fence; on the outside of the wall is a ditch, twelve feet wide by five feet deep. There are three principal gateways, which are very narrow entrances, formed by thick cocoa-nut posts, set firmly and closely in the ground, admitting only two persons at a time; these entrances are about

fifteen feet long, and in order to secure them against an attack, they are so arranged as to be filled up with earth; they have likewise a number of hollow logs buried in the wall, and set obliquely, serving as loop-holes, through which they may have a cross-fire at their enemies as they approach. These loop-holes can only be used for muskets, and have been introduced since the natives began to use fire-arms, or since the time of Mariner, for he makes no mention of them in describing the fortresses.

King George's house is near by: it was originally built at Hihifo, for a chapel; the chief of that place gave it to Taufaahau, and it was divided into three parts, and brought to Nukualofa in canoes. On my visit the king was not at home, but Mr. Tucker asked me to walk in. The building is not a large one; it is divided into three apartments by tapa screens, and was partly furnished. I observed many decanters and tumblers on a shelf, the former well-filled to appearance with spirits and gin; but I had no opportunity of knowing actually what the contents were. Many of the queen's waiting-maids were present, arranging the house previous to her arrival; she was hourly expected from Hapai, and is reported to be the most beautiful woman in the group. The new town is rapidly progressing; great regularity exists, and every thing is so arranged that each company of warriors with their families are assigned a particular quarter in which to build; they have come prepared, too, for the purpose, having brought many parts of their houses with them. These houses have a temporary appearance, although they are very comfortable; and the rapidity with which they build them is astonishing: the enclosure, and about fifty houses, were built in three days; twelve men can complete a house in a little more than a day. The average size of the houses is fifteen by twenty feet, and about fifteen feet high under the ridge-pole; they are of circular or elliptical form. The furniture of the natives consists of their implements of war, a bowl, a chest or box for their valuables, and a set of mats, some of which are made for the floors, and others for screens; the latter are about two feet in width, and are seen partly surrounding them when sitting, standing on their edges, which are supported by scrolls at each end; they are pretty, some of them being much ornamented.

They have great quantities of tapa cloth, in a thin sort of which they use to roll themselves at night, as a security against the mosquitoes, with which their island abounds. The new town is beautifully situated in a bread-fruit and cocoa-nut grove, which gives it perpetual shade, whilst it is sufficiently open to admit the cool breeze.

On the 26th, agreeably to my engagement, I moved the ship to the island of Pangai-Moutu, in order to be near the place of meeting of the conference between the two belligerent parties, and to protect both from the treachery they seemed mutually to fear. Pangai-Moutu is about three and a half miles from Nukualofa, and is now considered as neutral ground; the anchorage is a good and safe one. Our messenger, Anne Eliza Tubou, returned, and gave me assurances that the heathen were willing to meet in conference; that they desired peace, and to be left in the quiet enjoyment of their land and their gods, and did not wish to interfere or have any thing to do with the new religion. They again asked me, if they came,

would I protect them fully? In reply to this, I sent the strongest assurances of protection to them. My hopes, however, of producing a peace and reconciliation among them, began to decline; for it was evident that King George and his advisers, and, indeed, the whole Christian party, seemed to be desirous of continuing the war, either to force the heathen to become Christians, or to carry it on to extermination, which the number of their warriors made them believe they had the power to effect. I felt, in addition, that the missionaries were thwarting my exertions by permitting warlike preparations during the pending of the negotiations.

On the 28th, our boat returned from Moa, bringing an old blind chief, called Mufa. The wife of Faatu came in place of her husband, accompanied by four or five lesser chiefs, who had been deputed to attend the council. The wife of Faatu is a large fat woman. He himself was willing to attend, but his chiefs and people interfered and prevented him, as he was coming to the boat, fearing lest he should be detained as a hostage; and they made such an outcry (according to the officer) against it, that he was obliged to yield.

Mufa is the grandfather of Taufaaan, and was supposed would have some influence with him. From every thing we saw, we became satisfied that the heathen were desirous of making peace, at least the people of Moa. I gave orders to provide them with every thing for their comfort, giving them full assurance of my protection, and their safe return; and finding them ill at ease on board ship, I ordered a tent to be pitched on shore for their accommodation, and had them supplied with rice and molasses, as well as the food they are in the habit of eating, consisting of yams, taro, &c.

Deeming it advisable that Faatu should be present himself, I again sent a boat for him. The people of Moa, though heathens, have not taken an active part in the late disturbances, which are for the most part confined to Bea and Houma; and although the Moans are more strongly allied to the latter, they have always kept up an intercourse with Nukualofa.

One can readily enter into the feelings of the heathen, who are inhabitants of the sacred Tonga, and have always been looked up to by the inhabitants of the rest of the group, who were obliged to carry thither offerings, &c., to the gods, as superior to themselves, when they see an attempt made to subjugate them, by those whom they have always looked upon with contempt, and to force upon them a new religion, and a change in every thing they have hitherto looked upon as sacred. Such feelings are enough to make them war against any innovation in their social polity and laws; and after having been acknowledged from time immemorial as pre-eminent throughout the whole group, including Wallis, Hoorn, Traitor's and Keppel's Islands, it is not surprising that they should be found the active enemies of religious encroachments. Their vexation is augmented by the disappointment they experienced in the last election of the king of Tonga (Tui Kanakabolo); Tubou, although the brother of his predecessor, was chosen by them in preference to Mumui, the son, because they believed him to be favourable to their side, and opposed to the Christian party; Mumui, on the other hand, was brought up by the missionaries,

speaks English tolerably well, and is the missionaries' principal school-teacher. Mr. Tucker informed me that Mumui is now considered as the son of Tubou, and will be entitled to the succession, for which both Faatu and Taufaaan, are likewise candidates, on the death of Tubou.

The singular custom is said to prevail in Tonga, that none of the royal family ever receive a title of office; for by so doing, I was told, they would virtually renounce their right to the kingdom. The Tui Kanakabolo has the power of rescinding titles. In one view, the government may be considered a kind of family compact, for the persons holding titles and offices address one another by the names of father, son, uncle, and grandfather, without reference whatever to their real degree of relationship.

The titles generally consist of the name of the district over which the chief rules, and of which they receive the revenues, with "tui," a word synonymous with lord, before it. This, however, is not always the case, for there are others who have distinct titles, as Lavaka, the king of Bea, one of the bitterest opponents of the Christians, and who is determined to die rather than submit to them; and Ata, Takafanna, and Vaea, the great chief of Houma. The latter was deposed a short time since, yet still retains his title among the heathen.

Shadrach, or Mumui, as he is also called, is a good sample of the Tongese. I saw him at Mr. Tucker's, where he was introduced to me; and I must confess myself not a little surprised to hear him address me in tolerably good English, asking me the news, and what occurrences had taken place in Europe. It appeared ridiculous to be questioned by a half-naked savage upon such subjects; but I must do him the justice to say he seemed quite familiar with some of the events that have taken place during the last fifteen or twenty years. He is one of the missionaries' most zealous converts, and I believe to Mrs. Tucker is due the credit of teaching him; he has, I understood, sole charge of their large school of three hundred scholars, and it, in order and regularity, equals, if it does not exceed, any in our own country. Mrs. Tucker thinks this is partly to be ascribed to his being a high chief, whom they are brought up to have a great respect for. Mumui's countenance shows much intelligence, but his figure is rather out of proportion: his age is under thirty.

On the 27th, I visited Nukualofa, on business respecting the English schooner Currency Lass, Captain Wilson, which vessel was found here. The master reported that two of his men had been seized by King George, and imprisoned, until a ransom was paid, and the four Feejee women he had on board were delivered up. On inquiry, it proved that two of the crew of the Currency Lass, with the knowledge of the commander and owner (who was present), had taken the Feejee women on board at Vavao, knowing it to be against the laws of that island; they thence sailed for Tonga. On their leaving Vavao, a canoe was immediately despatched to Tonga, to inform King George of the occurrence, and it arrived before the vessel. King George, on her arrival, immediately sent on board for the purpose of a search; but the women were concealed below, and they were believed not to be on board. It however became known, in some

way, that they were there, and when four of the vessel's crew were sent on shore to mend the casks to receive oil, King George seized them, and tied them to trees. He then sent word, that the women must be given up, and that the owner must pay a ransom of muskets for the men. I found no difficulty in arranging the business. King George was very frank and straightforward about it, and told the facts very much as they are above related. On my pointing out to him that he had taken the wrong course, and was punishing the innocent men of the crew, he said he had no means of telling who were the guilty, but that if he had done any thing wrong he was willing to make amends. I thought that the conduct of the Currency Lass had been improper, and the decision being left to me, I determined that the men should be set at liberty, the women given up, and the muskets paid; that King George should return the water-casks, and pay for those that had been injured. I took occasion, however, to impress upon King George the necessity of not being so precipitate in punishing the innocent for the guilty. The men of the Currency Lass who had received bad treatment at his hands, received a recompense, and so the affair was ended.

On the morning of the 29th, it was reported to me that Mufa, the old blind chief, and his companion, had decamped, without giving any notice of their intention, and after eating their fill of the good things set before them, besides carrying off the remains of their feast. This movement, I afterwards learnt, was owing to their having received intelligence of the people of Bea having made another attack upon the yam-grounds of the Christians, and carried off a large quantity; and they were fearful lest some retaliatory measures should be taken to intercept them.

This day the kings visited me, with a number of their chiefs and people in a large canoe, and made a fine appearance on approaching the ship; it was the largest we saw during the voyage: it was one hundred feet in length, and of the double kind, which consists of two canoes of different size joined together by a deck thrown across them both; on this deck a small house is constructed, which serves for a cabin to keep off the weather; above the house was a small platform, eight feet square, with a railing on each side; the mast, which is about thirty feet long, is supported by guys, having a long yard attached to it, with its mat-sail of huge dimensions furled.

In all canoes, both double and single, small hatchways are left at both ends, with high combings, and when under way, a man is always seen in each baling out the water. Their mode of propelling the canoe by sculling is peculiar to the Tongese and Feejees; the sculler, instead of using the oar as we do, stands behind it, and holds it perpendicularly. The oar has a broad blade, and is ten feet in length: the sculler thus has the whole weight of his body to assist his strength in using it: it is confined in a hole in the platform. There is generally one of these oars at each end, and they are enabled to propel one of these large canoes between two and three miles an hour by means of them.

The Tongese are great adepts in managing their canoes when under sail; and they sail much more swiftly on a wind than before it. As this canoe is of Feejee origin, I shall defer describing it until a succeeding chapter.

The canoe of these chiefs was seen advancing slowly over the calm sea by the efforts of its scullers, and was filled with men, keeping perfect time and making excellent music.

They sing any words, but generally such as are applicable to the mission of business or pleasure they may be on; and although the air and bass are heard most distinctly, the four parts are all sung in the most perfect harmony. From the fact that the tenors and basses sing parts of a bar, alternating with each other, and come in perfectly, it would seem that they cultivate music in their own rude way, producing a wild but agreeable effect. To this the scullers keep time.

This music has a great resemblance to that of the Samoan Group, and it is the custom in both to sing it while at work. It may therefore be inferred that it is native, for the Tongese never had foreign music of any kind taught them. The missionaries themselves do not sing, and declared they were not able to tell Old Hundred from God save the King, if the same words were adapted to both! The females of this island, generally, have very musical voices, whose pitch is the same as that of European women; the voices of the men are a full octave below, round and full; all are very apt in learning a tune. Mr. Drayton remarks that he did not hear a single strain in the minor mood in singing, nor even in their natural sounds in speaking. Music might be cultivated among this people with great success, from the evident delight they take in musical sounds, and their strong desire to learn; but they could with difficulty be prevailed upon to sing, for the state of the country, and the fear of the missionaries, or the order of the king, prevented it.

Finding me engaged on the island of Pangaimoutu, at the observatory, the natives passed to the shore. I received them in my tent, and the first words spoken were to inform me that they had come to the conference; and they asked where their adversaries were. Being well aware that they had avoided coming the day before, and had gone out to make battle, instead of coming as appointed to the meeting, and that they knew the chiefs of Moa had returned, I took care to let them know that I was not to be imposed upon by such a trick. When they saw they could not deceive me, they seemed disposed to laugh it off; but finding that their chiefs and warriors (upwards of one hundred) were all armed, I took care to retort upon them for their want of confidence, and to tell them how unlike it was to their profession of Christianity, and that they must show a proper disposition, before the white people would give them any credit for being Christians. I then took the two kings with me on board the ship, leaving their canoe to follow. Shortly after we had embarked, King George's followers, finding a canoe on the beach owned by three natives of Rotuma, who reside at Moa, stole the paddles out of it, turned it over, and set it adrift. On making it known to King George, however, he promised recompense, but would not punish or seek to find out the perpetrators of the deed. I felt provoked that the king should not have had more control over them. He in truth seems to exercise very little power over his people. The kings were shown over the ship, and several guns were fired, which they pretended to wonder at very much.

They remained on board upwards of an hour, and took lunch with me. I was much amused with their conduct; they ate heartily of every thing on the table, and finally crammed themselves with almonds and raisins, with a most unkingly appetite. They then requested leave to take some to their wives, which they tied up in the corner of their tapas. Before they left the ship, I presented King George (in the name of the government) with a handsome fowling-piece, and King Josiah with a red silk umbrella, which highly delighted him. Their majesties were both naked, except the tapa wound around their waists; and it was a curious sight to see them endeavouring to imitate us in the use of knives and forks. They left the ship highly delighted with their presents and visit, embarked in their canoe, and proceeded to Nukualofa, all joining again in the same chorus. The canoe was nearly level with the water, and appeared like a floating mass of human beings.

Thus ended my hopes of effecting the desired reconciliation between the two parties. The heathen are represented by the Christian party and missionaries as a set of cruel savages, great liars, treacherous, and evil-disposed; and this character seems to be given to them only because they will not listen to the preaching; and it is alleged they must therefore be treated with severity, and compelled to yield. Under these feelings it was in vain to expect to produce a reconciliation; and had I been aware of them, I should not have attempted the task. I must here record, that in all that met our observations, the impression was, that the heathen were well-disposed and kind, and were desirous of putting an end to the difficulties.

Several of the officers visited Moa. In order to reach it, it is necessary to pass in boats through a large shallow lagoon, and it must be crossed nearly at high water, or the channel will be found very tortuous. The town or village is situated a little above the general level; it is surrounded by a ditch, which has little depth, as the coral rock is soon reached, and is not cut into. The intrenchment is composed of earth and logs, over which is a wicker fence, like that at Nukualofa; at the gates the ditch is interrupted, so as to form entrances, which are narrow and low. On the inside a guard-house with a sentinel was found; within the intrenchment was a high and well-built fence, and inside again were separate enclosures. They were led to the house of Faatu, the principal chief, who treated them with civility and kindness; they found him to possess both dignity and politeness. In his house were several Tonga drums, which were offered as seats. The natives were in great numbers, of all ages and sexes. A brisk trade was carried on for the supplies we needed; and although Faatu took no active part, yet the whole was evidently under his supervision.

The missionaries were kind enough to give me the following outline of the belief of the heathen belonging to this group of islands. They worship many gods, who are believed to possess unlimited power over them, and are called the gods of Bulotu or Atua faka Bulotu, whom they believe immortal; some of these gods are of this world, and are called Atua.

They believe that all evil is inflicted by certain gods, called Atua Banun; that the spirits of all chiefs go to Bulotu; but that those of poor people

remain in this world, to feed upon ants and lizards; that the island of Bulotu is not distant, although they do not attempt to fix its locality; that both gods and goddesses have visited Tonga within thirty years past, when they drank ava in their temples, and were married to Tonga chiefs; that the higher gods or those of Bulotu do not consider lying, theft, adultery, murder, &c., as crimes, but as things of this world, which are left for the inferior gods to deal with, and do not concern their more elevated natures. The only crime against the higher gods is sacrilege, committed towards their temples, or an improper use of the offerings. They call their oldest god Maui, and say that he drew the world or islands out of the sea with a hook and line: the first he drew up he named Ata, which is referred to Pylstart; the next was Tonga, with all its group of islands; then Lofanga and the other Hapai islands; and last, the Vavao Group. After he had finished his work, he came and fixed his residence at Tonga. In those days the sky was so near the earth that men were obliged to crawl. One day Maui is represented as having met an old woman with water in a cocoa-nut shell, of whom he begged some drink, which she refused until he promised to send the sky up high, which he did, by pushing it up, and there it has remained ever since. To Maui is ascribed the origin of that most useful tree called toa, the iron-wood (casuarina), which in time reached the sky, and enabled the god called Etumatubua to descend. Maui had two sons, the eldest called Maui Atalonga, and the younger Kijikiji, but by whom is not known. Kijikiji obtained some fire from the earth, and taught them to cook their food, which they found was good, and from that day food has been cooked which before was eaten raw. In order to preserve the fire, Kijikiji commanded it to go into certain trees, whence it is now obtained by friction. They further say, that during the time old Maui was on the earth, the only light was like that of the moon, and that neither day nor night existed; that Maui and his two sons live under the earth, where he sleeps most of his time; that when he turns himself over, he produces earthquakes, which they call "mofooeke." Maui is not now worshipped by any tribe, nor is he loved or feared.

Tangaloa, their second god, is thought to be nearly as old as Maui, and equal to him in dignity. He resides in the skies, which the Tongese believe to be very numerous. Hikuleo is the god of spirits, and is the third in order of time; he dwells in a cave in the island. Bulotu is most remarkable for a long tail, which prevents him from going further from the cave in which he resides than its length will admit of. In this cave he has feasts, and lives with his wives, by whom he has many children; he has absolute power over all, and all are forced to go to him; he is a being without love or goodness; to him the spirits of the chiefs and mataboles go, becoming his servants, and are forced to do his will, and to serve for what purpose he pleases; he even uses them to make fences of, or as bars to his gates; and they have the idea that his house and all things in it are made of the spirits of people, where they continue to serve without end. They never pray to Bulotu, except when some sacrilege has been committed to the offerings they make him; and on this occasion they always

make a human sacrifice. They also invoke him when the Tui Tonga is sick; and it depends on the reigning Tui Kauakabolo whether or not a human sacrifice is offered. None but gods are ever permitted to come from Bulotu. This god has his spirit-temple, where all their valuable presents to the gods are deposited. I was shown by the missionaries some large whale's teeth that were prettily carved, which had been found in the temple lately destroyed by the Christian party.

We saw here three natives of the island of Rotuma, who had been some time at Tonga: one of them was said to be a chief of high rank; another, an old man, a chief also, and a kind of Mentor to the former, who spoke a little English, and was quite blind, having become so since he had left his own island. The old man seemed to feel great solicitude about his charge, and expressed a wish to get away from Tonga. The reason he gave me for this desire was, "there was too much fight here; it would be bad for the young chief, who was to be a king." He told me also there had been no war on his island for many years. It is generally known by the whalers and others, that at Rotuma, the people are the most peaceable of any of these Polynesian islanders; and the whalers have been in the habit of resorting thither, because they experienced little difficulty, and are in no danger of being molested by the natives. He mentioned that many of his islanders were now abroad, on board of whale-ships, where they earned good wages, and afterwards returned to the island with some property; he said that Rotuma contained very many people. He who was designated as the high chief, was a pleasing, handsome young man, and appeared modest and gentle in his deportment. Some thought he resembled in physiognomy our American Indians, but I did not myself remark it.

The natives of Tonga, in habits, customs, looks, and general appearance, are so like the Samoans, that we were greatly struck with the resemblance; indeed, in writing of Samoa, I mentioned that many things have been derived from Tonga, particularly their tapa covering from the waist downwards, called siapo. The two races also agree in having no covering for the head, and the females resemble each other. The missionaries, through the king's ordinance, have caused the females to clothe themselves up to the neck with the pareu; but this is only conformed to before the missionaries, for we as frequently saw it worn in the native fashion.

In colour the Tongese are a little lighter than the Samoans, and the young children are almost if not quite white. As they grow up, they are left, both males and females, to run about in a state of nature, with their hair cropped close, except a small curly lock over each ear. This is a practice which has before been spoken of, as prevalent among the Samoans. Indeed, the similarity between the appearance of the children in the two groups is such, that they might be mistaken for each other. A larger proportion of fine-looking people is seldom to be seen in any portion of the globe; they are a shade lighter than any of the other islanders; their countenances are generally of the European cast; they are tall and well made, and their muscles are well developed. We had an opportunity of contrasting their physical characters with those of several other natives, and particularly

with a native of Erromago. The features of the latter were more nearly allied to those of the negro than any we had yet seen. His hair was woolly, his face prominent, and his lips thick. His nose, however, was not remarkably broad; his eyes were small, deeply sunk, and had a lively expression; his countenance was pleasing and intelligent, and his cheeks thin; his limbs were slender, and the calf of his leg high*.

We also found some of the Feejee islanders here: the intercourse between Tonga and the windward islands of the Feejee Group, is frequent. This intercourse is said to be the cause of the warlike habits which the Tongese have acquired. The people of Feejee appear to disadvantage when contrasted with those of Tonga; for the latter have much larger frames, their colour is several shades lighter, and their hair straight and fine, while that of the Feejee is frizzled.

The women of the Tonga Group are equally remarkable for their personal beauty.

The natives of Tonga, from the missionaries' accounts, are industrious and ingenious; much attachment exists between husband and wife, and they are very fond of their children. We were surprised at their numbers, which give a striking air of cheerfulness and gaiety to the scene, when they are seen in groups, playing, and practising many kinds of jugglery.

As far as we observed, the Tongese are very fond of amusements, and smoking tobacco is absolutely a passion with them; this is raised by themselves: the leaf is cut up very fine, and then rolled within a fine pandanus-leaf, forming a cigar. The Christian party are not allowed to smoke, although they use large quantities of ava, made of the piper myrsiticum, which has more intoxicating and deleterious effects than tobacco. So singular an interdiction of the one, with the free use of the other, induced me to ask Mr. Tucker the reason of it, and why, if they had only the power to prevent the use of one, they did not prohibit the most pernicious? The only answer I got was, that it would be a pity to break up their ava circles. I believe that few rise from them without being somewhat stupefied, but it does not amount to actual intoxication. The manner in which these natives use tobacco is one of the most pleasing of their social customs, and shows an absence of all selfishness; it is the same as at the Samoan Group, where the person who lights a pipe seldom gets more than two whiffs of its contents, as it is immediately passed around.

As a people they may be termed warlike; and war-councils, making speeches, and drinking ava, may be called the business of their lives.

The women are said to be virtuous; their employments are to make tapa, mats, baskets, &c., and do the house-work. The men cultivate the ground, and fish. The females are more in the habit of using lime-water and lime on their hair than those we have seen elsewhere. This application turns it red, but its chief use is to promote cleanliness. Of the ingenuity of the men we saw many proofs, in their manufacture of boxes, baskets, and miniature canoes.

* Among other peculiarities of this native of Erromago, it was stated by the low whites, that instead of wrapping himself up in tapa at night, like the Tongese, he was in the habit of burying himself in the sand in order to avoid the mosquitoes.

The last day I visited Nukualofa, Mr. Tucker was kind enough to take me to see Tamahaa, the aunt of Tui Tonga, who is considered of divine origin, for which reason great respect and honours are paid her. It is said that she has great influence with the heathen, although being a convert, she is favourable to the Christian side. As a token of the great respect with which she is regarded, it was remarked that the natives never turn the back upon her until at thirty or forty feet distance, and never eat in her presence. She is old enough to remember the arrival of Cook when she was a child. We found her sitting in her house, with a child who could just walk (both enclosed in a rolled screen, before described), whom she was feeding with cocoa-nut pulp. We shook hands and sat some time with her, making many inquiries about the former persons of the island, which the entertaining volumes of Dr. Martin, relating the adventures of Mariner, had made me acquainted with. She seemed to know Togi Uumnea, the name by which Mariner was known, and also most of the people mentioned in Mariner's account.

On a visit to the missionaries, I found Tubou or King Josiah, who had been sitting for his picture, and had fallen fast asleep. Wishing to get some information from him, I felt desirous of waking him up, and for that purpose asked him some questions about the kingly sport of rat-hunting, described in Mariner's *Tonga Islands*, and whether he could not indulge me with an exhibition of a hunt. His eyes at once brightened, and he became aroused to great animation, as though his former feats and pleasure in this sport were vividly before him. He regretted that the present state of the island, and the all-engrossing war, occupied too much of their attention to allow them to engage in any such peaceful occupation. He was represented to be a great sportsman, and the animation with which he spoke gave evident proof of it. He said that the game or sport was now seldom practised; that the rats had in consequence much increased, and were a great annoyance to the cultivators;—but the war seemed to engross all the powers of his feeble mind. He told me that the heathen in all had fifteen hundred warriors; that they usually made war by attacking the taro and yam-grounds; these they plunder and destroy, which ultimately produces a famine, not only to their enemies but to themselves. He seemed to rejoice that the heathen had made the first attack, as they would thereby, according to their belief, be conquered. He told me he much desired peace and quietness, and was willing to do any thing to bring it about; and as far as he was personally concerned, I believe he was in earnest, for every one seemed to give him the credit of being an imbecile, sleepy fellow, and paid him little or no respect.

During this visit I also saw a noted Feejee warrior, who had been absent from Tonga many years, and on his return had been engaged in these wars; he was described as a very wicked fellow, and if so, I can only say that his looks did not belie him: a worse or more brutal-looking man I have seldom seen. I understood that his arrival had been looked for with much impatience by the heathen, as affording them additional strength in a noted leader; but to the surprise of all, he joined himself to King George, and desired to become a Christian; he was received as

such, and was now employed fighting against the heathen.

On the evening of the day on which King George visited the ship, he held a council, in which he addressed his chiefs and warriors on the necessity of carrying on the war with vigour; and measures were taken to prosecute it accordingly. The meeting took place in the malai opposite his house, while he sat in the doorway with his two children, with the church-people forming a circle around him. At this meeting was seen the noted chief and Feejee warrior who has already been spoken of, fully armed, in the background. After the council had debated and talked over the subject fully, King George gave some commands, which several messengers were sent to execute, and the council was dismissed in a truly primitive style and language: "Let every man go and cook his yams."

After the assemblage was dismissed, the king and chiefs remained some time in consultation. In this council, an attack upon the heathen towns was arranged. The next morning, smoke was seen ascending from some of the heathen villages, and word was brought to me afterwards, that King George, having sallied forth with eight hundred warriors at midnight, had burned two of the heathen towns. Although he had ordered seven hundred more warriors to follow him at daylight, he did not pursue the heathen, who fled before him. On his return in the evening he held an avast feast in honour of his success; at this meeting, Lavaka and Ata, or the chiefs who held these titles, were formally degraded from their offices by the king,—a stroke of policy that is thought will have much influence in alienating this people, as it has usually had that effect. I, however, very much question its success in the present instance, when the parties have such a deadly animosity towards each other; for the very authority by which the act of degradation is performed, has abandoned the religion by which the act was sanctioned.

The population of the Tonga Islands, as now given by the missionaries, is 18,500, viz.:

Fooa	. . . . .	200
Hapai	. . . . .	4,000
Vavao	. . . . .	4,000
Keppel's	. . . . .	1,000
Boscawen	. . . . .	1,300
Tonga	. . . . .	8,000
Total	. . . . .	18,500

At present the number on Tonga is increased by about one thousand.

About four thousand five hundred of the natives are Christians, of whom two thousand five hundred are church members.

The jurisdiction of Tui Kanakabolo, or Lord of Kanakabolo, used to extend to Uea or Wallis Island, and several of the smaller islands in the neighbourhood.

This group of islands is divided into three missionary stations, viz.:

Tongataboo, commenced in	. . .	1829
Hapai	" . . .	1829
Vavao	" . . .	1830

The missionaries reside at each of these stations. The smaller islands are under the care of native teachers, and are visited occasionally by the missionaries to marry and baptize, &c. There is a printing-press established at Vavao, which has

been in operation since 1832. Many of the women can sew, and a great number of the natives have learned to read and write; a few of them have been taught the rules of arithmetic, and the principles of geography. A very great improvement has taken place in the morals of the Christian part of the community; but the attachment of the people to their ancient usages is so strong, and the island so little visited by civilized nations, that they have not had that stimulus to improvement which others have derived from such advantages.

While I bear witness to the arduous labours and well-conducted operations of these missionaries, I cannot help remarking that I was disappointed in finding religious intolerance existing among them. It was to be expected, that among a class so devoted, and undergoing so many privations, dangers, and sacrifices for the cause they are engaged in, charity would not have been wanting; and that they would have extended a friendly hand to all, of whatever persuasion, who came within their sphere of duty, especially those engaged in similar duties with themselves; but an instance of intolerance came to my knowledge here, that I regretted to hear of. On board "The Currency Lass" were two Catholic missionaries, who had been in this small vessel of one hundred and twenty tons for five months, and three weeks of that time they were in this harbour, without having received even an invitation to visit the shore from the Wesleyan missionaries, nor were any civilities whatever offered or paid to them. I can easily conceive why objections should be made to their preaching or remaining to propagate their creed in a field that was already occupied; but to withhold from them the common courtesies of life, in the present state of the world, surprised me not a little; and I am satisfied that the example set in this case by the missionaries has caused much remark among the natives themselves upon this want of hospitality. They cannot understand the dogmas of the different sects of Christians, so that they naturally look upon them all as missionaries of this same faith, and cannot see why they should treat each other with less courtesy than is extended to those who are not missionaries. Their ideas of enemies only extend to those who fight, which they well know all missionaries refuse to do. Were missionaries aware of the unfavourable impression produced on the minds of most of the natives by such intolerance, it would never be practised, particularly as it is calculated to excite prejudices in strangers who visit their different mission stations, which not unfrequently so blinds them that they go away with unfavourable impressions. Every endeavour is frequently made by those whites who are resident near them to store up and repeat these facts, with exaggerations, which go far to damp the ardour of those who are interested in forwarding the great cause in which they are engaged. For all these considerations, they ought to avoid, by every means, falling short of that high-minded liberality that is expected from them.

The Tongese are remarkable for their feats in swimming, and are very daring when sailing their canoes. An instance was told me that occurred in 1839, the year before our visit, which is looked upon as a well-established fact in this group. Two canoes left Hapai for Vavao; on their way, the wind arose and blew a strong gale from the north

directly against them; one of them was driven back and landed at Ofalanga, an uninhabited island of the group, occasionally visited by the natives, for nuts, shells, fish, &c.; in the other canoe as they were taking in sail, a man fell overboard, and the wind and sea being strong and high, it was found impossible to save him without risking the lives of all on board, and he was given up; this was about four o'clock, and the canoe was just in sight of land. The man accordingly turned his face towards Hapai, and resolved to reach it if possible; he knew the wind was north, and directed his course by feeling the wind in his right and left ear, intending to swim before it; he continued swimming, and resting by floating upon the water, until the moon rose; he then steered his course by that luminary, and thus continued until morning, when he was near land, and almost within reach of the coral reef. When he had thus nearly escaped drowning, he was on the point of becoming the prey of a huge shark, whose jaws he avoided by reaching the coral shelf; he then landed upon the island, which proved to be Ofalanga, where the first canoe had been driven; the crew found him on the beach senseless, and attended to him; he soon was brought to, and shortly afterwards recovered his strength. This man's name is Theophilus Tohu; he is a native of Huano on the island of Hapai. The canoe from which he was lost returned to Huano before Theophilus did, and when he reached his home, he found his friends had passed through the usual ceremonies of his funeral.

The island of Tongataboo is of coral formation, and with extensive coral reefs to the northward of it; it has a shallow lagoon, which extends about ten miles into the interior. The soil is deeper than upon any island of coral formation we have yet visited; it is nearly a dead level, with the exception of a few hillocks, thirty or forty feet high; the soil is a rich and fertile vegetable mould, and it is not composed of sand, as in the other coral islands. The vegetation, probably for this reason, does not altogether resemble that found on those islands. The luxuriance of the foliage is not surpassed. Some few specimens of pumice have been found on its shores, probably drifted there from the island of Tofooa, which is said to have an active volcano. Tofooa is the highest island of the group, and next in height is Eooa. There is a marked difference in the appearance of the islands of Eooa and Tonga; on the former of which there is comparatively little vegetation.

On Tonga, although the vegetation equals any within the tropics, I was struck with the exaggerated accounts of the cultivation of the island; for, so far from finding it a perfect garden, exhibiting the greatest care in its cultivation, it now appeared to be entirely neglected. The yam-grounds are more in the interior of the island, and in consequence of the war, there was no safety in passing beyond the limits of the party which possessed the north part of the island, or that in the vicinity of Nukualofa.

The natives cultivate yams, sweet-potatoes, bananas, cocoa-nuts, bread-fruit, sugar-cane, shaddock, limes, and the ti (*spondias dulcis*); the pandanus is much attended to, and is one of their most useful trees, and of it all their mats are made; a little corn is grown, and they have the papaw-apple (papaya), and water-melon. The missionaries

have introduced the sweet orange from Tahiti, and a species of cherimoyer (*annona*); many other things have, as I learned, been attempted, but have hitherto failed. I presented the missionaries with a variety of both fruit and vegetable seeds, and trust that they will succeed and be of advantage to future visitors; the natives, I was told, understand the different kinds, discriminating among them in their planting.

The botany of this island resembles that of the Samoan Group. A species of nutmeg was found here, differing from either of the Samoan ones: the trees were very full of fruit, and much larger; one of them was observed a foot and a half in diameter, and upwards of forty feet in height. There was a number of ornamental shrubs. A description of climbing plants, which it was found a difficult matter to trace among the varieties of forest trees, gave a peculiar character to some parts of this overgrown island.

The climate of Tonga is humid and the heat oppressive, rising frequently to 98° in the shade; much rain falls; the mean temperature during our stay was 79.25°. The trade-winds are by no means constant, and westerly winds occasionally blow in every season, which, from their variable character, have obtained the name with the natives of "foolish winds."

We had to regret the state the island was in, as it prevented our making that full examination of it that I had intended and hoped; we saw enough, however, to satisfy ourselves that Tongataboo is not the cultivated garden it has been represented to be. The ficus tree figured in the voyage of the *Astrolabe*, whose trunk is there stated to be one hundred feet in circumference, was visited. We were surprised to find it had no proper trunk, but only a mass of intertwined roots, through which it is possible to see in many directions, rising to a height of eighty or ninety feet, when it throws around its great and wide-spreading branches. Two other species of ficus were found, one with labiate branches and horizontal spreading arms, the other with a trunk about nine feet in diameter.

The climate cannot be considered salubrious; very heavy dews fall at night, and no constitution can endure frequent exposure at this time; the transitions from heat to cold are sudden and great, and the nights are often so chilly as to make blankets necessary.

Hurricanes are frequent in this group, scarcely a season passing without some occurrence of the kind: the months of February and March are those in which they occur; but they have also taken place in November and December. The missionaries as yet have made no series of observations, nor kept any kind of meteorological diary; but in answer to my inquiries I obtained the information, that the storms begin at the north-west, thence veer to the eastward, and end in south-east. The wind continues to increase until it becomes a hurricane: houses are levelled, and trees torn up by the roots; vessels are driven on shore; canoes lost or driven hundreds of miles away to other islands. In these storms the wind is frequently observed to change almost immediately from one point to its opposite; and in the same group of islands, trees have fallen, during the same gale, some to the south and others to the north. They are local in their effects, and fall chiefly upon Hapai and

Vavao; if the fury of the storm be felt at Vavao, Tonga generally escapes, and *vice versa*; but Hapai is more or less the sufferer in both cases, situated as it is between the two places. A very severe hurricane was felt at Lefooka, Hapai, in 1834. These hurricanes vary in duration from eighteen to thirty-six hours; after a destructive one, a famine generally ensues, in which numbers of the natives die: it destroys all their crops. The natives give the name to those which are most severe, "Afa higa faji," or the hurricane that throws down the banana-trees.

Earthquakes are frequently felt here, though there is no knowledge of any destructive effects from them.

The diseases of this climate are influenza, colds, coughs, and consumptions; glandular swellings, some eruptive complaints, fevers, and some slight irregular intermittents are experienced; but to judge from the number of old persons, longevity is by no means uncommon. The venereal disease has not made the same devastation here as elsewhere; probably because, as respects morals and virtue, these natives are the opposite to those of Tahiti.

Desirous of obtaining some of their arms, implements, and other curiosities, Mr. Waldron, Mr. Hale, and Mr. Vanderford, went to Nukualofa to make purchases, taking with them a large assortment of articles for the fair. The difficulties to be encountered in making purchases of the natives is scarcely to be imagined; no small amount of patience is required to go through the chaffering that is necessary to secure the article desired; for if their price is at once acceded to, they consider their bargain is a bad one. No inducement is sufficient for them to part with several articles of a kind at once; each must be disposed of separately, and on all a like chaffering must be gone through with. The natives, before they bring articles for sale, fix their minds upon something they desire to obtain, and if that is not to be had, they take their things away again, it matters not whether the article is equivalent in value or not. Mr. Vanderford, who has been here several times since 1810, told me "he had never found the Tonga people such saucy fellows."

During our stay here, we were much incommoded by the mosquitoes. I never saw them more troublesome; and for three or four nights the officers and men obtained no sleep, which, added to the excessive heat, was overpowering, after the fatigues of a day spent in surveying. I never saw the men look as much fatigued when the day dawned; some of them declared that the mosquitoes had bitten through every thing but their boots and hats; they even sought shelter in the tops and cross-trees, hoping thus to escape the attacks of these tormentors; the ship was so filled with them, that she was (not unaptly) likened to a musical-box. Their attacks bade defiance to all defences in the way of mosquito-nets; night observations became almost impracticable in consequence of this intolerable annoyance, and I felt quite desirous for the time of our departure from the island to arrive.

On the 1st of May, our observations and surveying duties being completed, the instruments were embarked, and the boats hoisted in. A new difficulty now arose; for I was informed that

the native pilots had received a message from the king, forbidding them to take the ships through the reefs; and although we needed their services but little, yet I thought it was a circumstance that required some investigation. I however gave orders to weigh anchor; but, while in the act of doing so, the Porpoise was reported as in sight: I therefore awaited her joining company. She had been detained in consequence of light, variable winds; had seen nothing of Vasquez Island, but had sighted Pylstart's Island.

We found that the crew of the Porpoise had been, as well as ourselves, affected by the epidemic influenza, and that one case (that of David Bate-man the marine) was somewhat serious; we therefore received him on board the Vincennes, for his better accommodation.

In the afternoon we ran down to the anchorage, off Nukualofa, when the Porpoise and Flying-Fish both went ashore on the reef, in consequence of the sun preventing it from being seen; they got off soon after without any damage. On anchoring, I despatched an officer on shore, to inquire into the reason of the order sent the pilots; word was immediately returned, on the part of the kings, that they knew nothing of the business; and they disclaimed any interference with them at all. On further investigation, the report was found to have grown out of the jealousy between two pilots, Tahiti Jim and Isaac: the former being the favourite of King George, whilst the latter was attached to King Josiah. Isaac having come on board first, was accepted as pilot; but Tahiti Jim being shrewd and cunning, (of which we had much experience afterwards,) did not like the idea of Isaac, who, as he told me, was no pilot, reaping all the reward; he accordingly intimated to him, that unless he promised to share the profits with him, he should report him to King George; and that if he got the ship ashore the captain would hang him. This so alarmed Isaac, that being unwilling to fall under the displeasure of the king, and equally so to divide his profits, concocted the story that he was ordered by the king not to take the vessel to sea. I rather suspected Tahiti Jim of delivering such a message; finding, however, since the arrival of the Porpoise, that there was now a prospect of profit for both, they became reconciled. This affair being settled, and having finished my orders for the Peacock, and sent them to the missionaries, we hove up our anchors, and made sail. Before we had got without the reef, a sail was descried, which proved to be the Peacock. After passing congratulations, by cheering, I made signal to anchor, which was done, near the outer reefs, in ten fathoms water. We were now once more together, and only a few days behind the time allotted for reaching the Feejee Group, and beginning operations there.

The Peacock, as we have seen, was left at Sydney to complete her repairs; these detained her until the 30th of March, for it was found extremely difficult to obtain mechanics; and all who were employed, except two, were a lazy and drunken set: they all belong to the "Trades' Union;" and to such an extreme is the action of this association carried, that they invariably support the most worthless, and make common cause with them. Employers are completely under their control, and there is no manner of redress for idleness or bad work. If the employer complains, they all leave work, refusing

to do any thing more, and soon compel him to re-engage them through necessity.

The repairs were made, as has been stated, in Mossman's Cove, on the north shore of the harbour of Sydney, one of the many natural docks that nature has provided for this harbour. The ship was laid aground, so as to expose her whole fore-foot, during the ebb tide. The damage which she had sustained has been before spoken of; the stem was literally worn to within an inch and a half of the wood-ends. After repairing this, by scraping the stem and putting on a new cut-water, they made use of a diving apparatus to place the new braces, and mend the copper that was broken.

Although they were removed some distance from Sydney and its vile grog-shops, despite the utmost caution to prevent the crew from procuring spirits, it was found that a plan had been formed to supply them with it. In a hut near by, lived an Irishman, familiarly called Paddy, who acted as a kind of suttler, in supplying the messes of the officers and men with fresh bread and milk, and also doing the washing. After a few days it was discovered that the men were obtaining some extra allowance of spirits, and suspicions naturally enough fell on Paddy as the cause of this irregularity, and its consequent disturbances. Orders were therefore given to search him, on his next visit to the ship; this fully confirmed the suspicion, and his presence on board was at once interdicted.

Paddy had no idea of being thus defeated in reaping his harvest from the ship's company; he therefore enlisted in his service a man, if possible, of a worse character than himself, whom he kept constantly supplied with rum, brandy, and gin from Sydney, and made it known to the crew that he was ready to furnish his former customers. The men soon managed, under various pretexts, to visit his hut, and supply themselves at the expense of their clothing, or some other equivalent. This new arrangement succeeded for a time, but was at length detected, and the nuisance wholly stopped; steps were also taken for the punishment of the offenders, by making a complaint against them, which caused the apprehension of Paddy and his partner, and he was required to pay a fine of 30*l.*, or be imprisoned for six months.

Paddy was not the only annoyance they had to encounter. Another was the poisonous snakes that infest the secluded nooks of Mossman's Bay, numbers of which were daily seen near the ship; among them was one resembling the diamond-snake, of a light silvery colour, about eighteen inches in length, and as thick as the little finger: these are very numerous, and it is very desirable to avoid coming in contact with them, for their bite has often proved fatal. Instances are known in Sydney of persons who have been bitten, and have died in a few hours. An eminent physician of Sydney, on being asked the treatment in case of a bite, replied: "to bandage the affected part as soon as possible, cut it out, and as soon as preparations can be made, amputate the limb!" These venomous snakes frequently crawl into houses near the woods, and persons have been bitten whilst sitting at their doors in the evening. A lady, living on the north shore, near the residence of the American consul, was sitting playing on the piano, when hearing some rustling noise, suddenly looked around, and discovered a diamond-snake only a short dis-

tance from her; she screamed aloud, and jumped on the music-stool; a servant soon came to the rescue, and killed the intruder. Instances occur repeatedly of these snakes infesting the houses, and so common are they, that if a person is stung, it is at once supposed to be by a snake. The effects of the bite, if not fatal, are said to produce partial blindness.

On the 30th of March they left Sydney, and passed the Heads of Port Jackson on the same afternoon. They had at first light winds, and made but little progress. When about seventy miles from the coast, in latitude 33½° S., they experienced a change of four degrees in the temperature of the sea; and on the 3rd of April, they found they had been set thirty miles to the southward during the day. On the 5th, the temperature again fell to 72°, with an easterly current. Several English vessels were seen cruising for whales in latitude 28° S., longitude 157° E. The winds continued contrary and light. On the 9th, in longitude 159° 43' E., latitude 26° S., an opportunity occurred for trying the deep-sea temperature. At eight hundred and thirty fathoms below the surface, the temperature had decreased to 46°, that of the surface being 76°; and the current was found setting east-by-south half a mile per hour.

The current was now found setting to the south-west, at the rate of half a mile per hour.

On the 18th they again attempted to get a deep-sea cast, and had nineteen hundred fathoms of line out; in hauling in the line it parted, and nearly seventeen hundred fathoms of it were lost, besides the only self-registering thermometer we had left in the squadron, which put a stop to our experiments. They had now several days of light variable winds, with occasional rain and much lightning and thunder. The island of Eooa was made on the 30th of April, and on the 1st of May they passed through the reefs and joined the squadron.

The present King Josiah is one of the sons of Mumui, who was reigning in Cook's time. Three of King Josiah's brothers have preceded him as rulers of Tonga: these were Tugo Aho, Tubou Toa, and Tubou Maloki. The first reigned but a short time, being put to death by Tubou Ninha, a brother of the celebrated Finau. Tubou Ninha was afterwards murdered by Tubou Toa, who reigned over the Hapai Islands, Tubou Maloki receiving the title of King of Tonga, or rather Tui Kanakabolo, or Lord of Kanakabolo, while that of Vavao was governed by the younger Finau, adopted son of Finau Ulukalalu. This was the state of the island at the time of Mariner's, or Togi Uummea's visit. A few months after his departure, Finau died a natural death, and was succeeded by his uncle, Finau Feejee, having Toa Omoo to assist him. Finau Feejee was murdered by Hala Apiapia, who succeeded him; but his ambition of obtaining kingly power was not long satisfied, before he was put to death by Paunga, a high chief. The son of Finau Ulukalalu, named Tuabiji, succeeded, but died within a few years, and did not bear a good character. His dominions were immediately seized upon by Taufaahau, the present King George, then king of Hapai, the son of Tubou Toa, and grandson of Mumui; and there is now a prospect of his becoming king of the whole group. The Tui Kanakabolo, Tubou Maloki, was suc-

ceeded by the present King Josiah, or Tubou. Before the death of Tubou Maloki, his power had become very limited, Tonga itself being distracted by many civil broils; neither has his successor, King Josiah, more energy. His domain may now be said to be circumscribed to the town of Nukualofa; and if it had not been for the timely aid of Taufaahau, he would in all probability ere now have been driven from his kingdom. The son of Tubou Maloki, Mumui, before spoken of, is most thought of as his successor, though against such a powerful competitor as King George he does not stand much chance.

Since leaving the island, in the month of August, whilst employed in the neighbouring group (the Feejee), we learned that the war in Tonga had terminated very differently from what had been anticipated,—in the complete rout of the Christian party, King George and all his warriors being compelled to fly the island. On the arrival of Captain Croker, of H.B.M. sloop *Favourite*, he warmly interested himself in the advancement of the missionary cause, and determined to engage in negotiations with the heathen; but finding that many difficulties impeded his plans, he unfortunately determined to bring matters at once to an issue, and demanded that the terms he dictated should be acceded to by the heathen within a few hours. To enforce his demand, he landed a large part of his crew, with officers, and proceeded to the fortress of Bea; only an hour was given its defenders to decide. I am informed that it has since been understood that if a longer time had been granted, they would have acceded to his demand. He was punctual to his time, and on the chiefs refusing to surrender, he made an attack upon the fortress. On his advancing near the gate, he, with many of his officers and men, were shot down; the survivors suffered a total defeat, and were obliged to retreat forthwith. The heathen now became the assailants, and the Christian party, together with the missionaries, were forced to embark, and afterwards landed at Vavao; King George was obliged to retire, and Nukualofa was invested by the heathen. Thus ended this religious war, and I cannot but believe that the precipitate zeal of the missionaries was the cause of so disastrous a result. That the heathen were well disposed to make peace, I am well assured; a little patience and forbearance, and at the same time encouraging intercourse with their towns and setting them a good example, would have gradually and surely brought about the desired results; while to force them to become converts, was a mode of proceeding calculated only to excite their enmity and opposition.

The night previous to our sailing, May 3rd, two of the Feejee women who had been smuggled from Vavao by Captain Wilson, paddled off in a canoe to the Peacock, entreating to be received on board and conveyed to their own country, and with the view of securing their object, it was found they had thrown away their paddles. The request was denied, and Captain Hudson had new ones at once made for them; they were compelled to enter their canoe again, and paddled off. They then visited the tender *Flying-Fish*, and in order to prevent their being turned off in the same way, they set their canoe adrift. As it was late at night, they were retained on board, and sent to the *Vincennes*

early in the morning. Well understanding, from the interview I had with King George in relation to The Currency Lass, his feelings on the subject, (for the abduction of these very women from the island of Vavao had been the cause of the difficulty,) I immediately ordered them to be landed. I did this because I was not willing to have an appearance of inconsistency in the minds of these natives, in first blaming conduct I thought unwarrantable in Captain Wilson, and then doing the same act myself. Had I taken any other course, it would no doubt have provoked aggression upon the first American vessel that visited any of the ports of this group. My commiseration and that of many of the officers was excited at the sight of these poor defenceless creatures, who were desirous to return to their native island, and who had made such strenuous efforts to accomplish their wishes; but my public duty was too well defined for me to allow their tears and entreaties to prevail over higher considerations.

The intercourse between the Feejee and Tonga islanders, has been of late years frequent; the latter are more inclined to leave their homes than the former, and when a Tongese has once visited the Feejee Group and returns safely, he is looked upon as a traveller. In Tonga they consider and look up to the Feejee islanders as more polished, and their opinions are viewed with much respect; this one not only observes in their conversation, but they show it in adopting their manners and customs, and the attention and deference they pay to the opinions of those who have visited or belong to that group; from them they obtain their canoes, and have learned the art of sailing and navigating them; and from the situation of their islands, being more exposed to a rough ocean, they are probably now better and more adventurous navigators. This intercourse is kept up more particularly with the eastern islands of the Feejees: at Lakemba we found many of them residing. When

Cook visited this group, little was known of the Feejees. Thirty years afterwards, during the time Mariner resided on the Tonga Islands, the intercourse and information had become greater and more accurate; and at the period of our visit, we heard of many things that were passing in that group as familiar topics; and we found among them many Tongese who were enjoying the hospitality of their western neighbours. The prevailing winds are in favour of the intercourse on the side of the Tongese, which may in some measure account for it; and the favour with which they have always been received, and the flattering accounts those who returned have given of their reception, may in some measure account for the desire they always evince to pay the Feejee Group a visit. In a very few years, through the intercourse that will be brought about by the missionaries, there will be as much passing to and fro between them, as there is now among the several islands of either group, which will have a great tendency to advance the civilization of both.

Previous to my departure, a sailor by the name of Tom Granby desired to have a passage to the Feejees, and although I entertained always much suspicion of the vagabonds who frequent the different islands, Tom's countenance was so very prepossessing, and his modesty as to his capabilities as a pilot such as to satisfy me that he was not one of the runaways or convicts; he was, besides, as he informed me, a resident of the island of Ovolau. I had already made up my mind that this island should be the first place the squadron should go to, on account of its central position, which, if the harbour proved convenient, offered the best point whence to superintend the duties and to fix my observatory at; Tom was therefore taken on board, and remained with us during the whole time we were in the Feejee Group, and I was well satisfied with him; in short, he did not belie his countenance.

CHAPTER XXII.

FEEJEE GROUP. ISLAND OF OVOLAU.

DEPARTURE FROM TONGATABOO—THE PORPOISE DETACHED—ENTRANCE INTO THE FEEJEE GROUP—ARRIVAL AT LEVUKA—TUI LEVUKA—MESSAGE SENT TO KING TANOA—PLANS OF OPERATION—TENDER OF THE SHIP LEONIDAS—EXCURSION TO THE PEAK OF ANDULONG—OBSERVATORY ESTABLISHED—BOATS DETACHED TO SURVEY—ORDERS TO THE OFFICERS—ARRIVAL OF THE FLYING-FISH—PRECAUTIONS—ARRIVAL OF TANOA—HIS RECEPTION AT LEVUKA—HIS VISIT TO THE VINCENNES—HIS ADOPTION OF THE RULES AND REGULATIONS—HIS SUITE—HIS SECOND VISIT—DISTRICTS OF OVOLAU—LABOURS OF TUI LEVUKA—RULING POWER IN OVOLAU—TOWN OF LEVUKA—DISTRICTS OF THE FEEJEE GROUP—RECENT HISTORY OF AMBAU—INTRODUCTION OF FIRE-ARMS—REIGN OF ULIVOU—ACCESSION OF TANOA—WAR WITH REWA—REBELLION AGAINST TANOA—HIS TRIUMPHAL RETURN—DISTURBANCES BETWEEN AMBAU AND REWA—PREPARATIONS FOR MAKING A GARDEN—ROYAL PRESENT FROM TANOA—DEATH OF DAVID BATEMAN—VISIT FROM SERU—HIS RECEPTION ON BOARD THE VINCENNES—VISIT FROM PADDY CONNEL—HIS HISTORY.

At daylight on the 4th of May, 1840, the squadron got under way from the harbour of Nukualofa, and passing without the reefs through a narrow passage, safely bore off to the westward under all sail, having the wind from east-north-east. At meridian we had the islands of Honga Tonga and Honga Hapai to the north of us; these are both high, and

are distant from Tonga twenty-seven miles. On the 5th we had a sight of Turtle Island, and determined it to be in longitude 178° 33' W., latitude 19° 48' S.*; it has the appearance of a small

* Subsequent observations by the Porpoise, place it in longitude 178° 37' 13" W., latitude 19° 50' S.

rounded knoll. The wind was blowing fresh from the south-east, and after dark I determined to heave-to to await daylight, off the southern and eastern islands of the Feejee Group; this was done in order to set the Porpoise at her work. Since leaving Tonga, we have found ulcers prevalent among our men, from the bites they had received; they were inflammatory and difficult to cure, prevailing among those apparently most healthy. Just at dawn we made an island, and at the same time a large sandbank, about half a mile from us; had darkness continued half an hour longer, we should have probably been wrecked upon the latter, as I did not believe myself within five miles of it. Our unexpected vicinity to it was caused by a strong current to the northward.

At 6 A.M. we began our observations, and at eight I made signal to the Porpoise to part company.

We continued our course with the Peacock and Flying-Fish in company. I had compiled a chart of the comparatively unknown sea we were about to traverse; but the weather was threatening, and from the specimen we had had in the morning of its dangers, I thought it would be prudent to haul off, which I did, at 2 P.M. At five, land was reported ahead, and on the lee bow; it proved to be the island of Totoia, which I now found was thirty miles out of the position assigned it by former navigators. I at once came to the determination of running into the group, feeling assured we should thus save much time, and probably find smoother water; the dangers we had to encounter in either way were about equal. It was now blowing a fresh gale, which obliged us to take three reefs in the top-sails; it is by no means a pleasant business to be running over unknown ground, in a dark night, before a brisk gale, at the rate of seven or eight miles an hour. The sea was unusually phosphorescent, and the night was disagreeable with rain and mists. The Peacock and Flying-Fish followed us. The morning proved fine, and at daylight we were within a short distance of the Horse-shoe Reef, unknown to any of us but Tom, who thought we must be at least twenty miles from it. We found ourselves in the midst of a number of beautiful islands, viz.* Goro, Vanua-levu, and Somu-somu on our right; Nairai, Ambatiki, and Matuku, on the left; whilst Ovolau, Wakaia, and Mokungai, were in front; they were all girt by white encircling reefs. So beautiful was their aspect, that I could scarcely bring my mind to the realizing sense of the well-known fact, that they were the abode of a savage, ferocious, and treacherous race of cannibals.

Each island had its own peculiar beauty, but the eye as well as mind felt more satisfaction in resting upon Ovolau, which as we approached, had more of the appearance of civilization about it than the others; it is also the highest, most broken, and most picturesque. In consequence of light winds, we did not succeed in reaching the harbour of Levuka that evening, and passed the night under way, between Ovolau and Wakaia. At daylight on the 8th of May, we were off the port, and made all sail for it. At nine o'clock, being off the entrance, I took the precaution, as the breeze was light, to hoist the

boats out (having to pass through a passage only eight hundred feet in width), and sent them ahead to tow. At first it is not a little alarming to approach these entrances with a light wind, and often with a strong current setting in or out; the ship rolling and tossing with the swell as she nears the reefs, the deep-blue water of the ocean curling into white foam on them, with no bottom until the entrance is gained, when a beautiful and tranquil basin opens to the view.

The remarkable peculiarity of these coral harbours, if so I may call them, is that in gaining them, it is but an instant from the time the sea is left until security is found equal to that of an artificial dock; this is particularly the case with the harbour of Levuka. The shore was lined with natives, watching our progress with their usual curiosity; and it was amusing to hear the shouts of applause that emanated from the crowds on shore, when they witnessed the men, dressed all in white, running up the rigging to furl the sails.

In passing to the anchorage, we saw a tiny boat, in which was David Whippy, one of the principal white residents here, with one of his naked children. This man ran away from a ship, commanded by his brother, that was trading in this group, in consequence of the ill-treatment he received on board; he now has been eighteen years on this island, and is the principal man among the whites. He is considered a royal messenger, or Matium Ambau, and is much looked up to by the chiefs. He speaks their language well; is a prudent trustworthy person, and understands the character of the natives perfectly: his worth and excellent character I had long heard of*. He immediately came on board to welcome us, and after we had anchored near the town, he brought off Tui Levuka, the chief of the Levuka town. This dignitary was a stout, well-made man, strong and athletic, entirely naked, with the exception of a scanty maro, with long ends of white tapa hanging down before and behind, and a turban of white fleecy tapa, not unlike tissue-paper, around his head, of enormous size. These turbans designate the chiefs, and frequently have a small wreath of flowers over them. His face was a shining black, having been painted for the occasion; his countenance had a good expression, and he seemed, after a few moments, to be quite at his ease. As is customary, I at once gave him a present of two whale's teeth and two fathoms of red cotton cloth, with which he was well satisfied, clapping his hands several times, which is their mode of expressing thanks. His hair was crisped, with a small whalebone stick or needle, twelve or fourteen inches in length, stuck into it on one side; he did not leave me long in doubt as to the use to which the latter is put, for it was continually in requisition to scratch his head, the vermin being not a little troublesome. He was very desirous of doing every thing for me, and said that any ground I wished to occupy, was at the service of the countrymen of his friend Whippy.

Ovolau is the principal residence of the white men in the group, to whose general deportment and good conduct I must bear testimony; I met with none better disposed throughout the voyage

* In the orthography of the names of the Feejee Group, I have followed the pronunciation, and not the true construction of the language.

* He has, since our return, been appointed vice-consul for the Feejee Group.

than were found there. I at once engaged them to become our interpreters during the time we stayed, which afforded us many advantages in communicating with the natives.

About three hours after the Vincennes anchored, the Peacock entered; but there was no news or sign of the Flying-Fish, nor had she been seen while the Peacock was in the offing. I felt much uneasiness about her, more so on account of the inexperienced officer who had her in temporary charge.

I directed the chief, Tui Levuka, to send a message immediately to Ambau, to inform King Tanoa of my arrival, and desire him to visit me. This was at once assuming authority over him, and after the fashion (as I understood) of the country; but it was doubted by some whether he would come, as he was old, and a powerful chief. I thought the experiment was worth trying, as, in case he obeyed, it would be considered that he acknowledged me as his superior, which I thought might be beneficial in case of any difficulty occurring during our stay; I believed, moreover, that it would add greatly to the respect which the natives would hold us in.

The town of Levuka contains about forty houses; it is situated on the east side of the island of Ovolau, in a quiet and peaceful valley, surrounded by a dense grove of cocoa-nut and bread-fruit trees, with a fine stream of fresh and pure water running through it to the beach; high, broken, volcanic peaks rise to the west, forming the background.

The frames of the houses are built of the bread-fruit tree, and are filled in with reeds, whilst the roof is covered with a thatch of the wild sugarcane. They are usually oblong in shape, and from twenty to twenty-five feet in length by fifteen in breadth.

The most conspicuous and remarkable structure is the bure, or spirit-house, which is built on a raised and walled mound: its proportions are exceedingly uncouth, being nearly twice as high as it is broad at its base, and forming a singular, sharp-peaked roof; the piece of timber serving for the ridge-pole, projects three or four feet at each end, is covered with numbers of white shells (*ovula cypræa*), and has two long poles or spears crossing it at right angles. At the termination of the thatching, the roofs of all the houses are about a foot thick, and project eighteen inches or two feet, forming eaves, which secure them from the wet. For the most part they have two doors, and a fire-place in the centre, composed of a few stones. The furniture consists of a few boxes, mats, several large clay jars, and many drinking vessels, the manufacture of pottery being extensively carried on by them. The sleeping-place is generally screened off, and raised about a foot above the other part of the floor.

Having settled definitively the mode of operation I intended to pursue in surveying the group, I was desirous of fixing some of the main points in my own mind, as well as in that of the officers, and therefore ordered a large party from each ship to be prepared to accompany me on the following morning, to one of the high peaks of the island, called Andulong, taking with us the barometers, &c., for measuring its altitude. I likewise issued an order, directing officers who left the ship for any purpose to be armed; being well satisfied that every pre-

caution ought to be taken, in order to prevent surprise in any shape; I also impressed upon all the necessity of circumspection, and of keeping themselves on their guard, which, as I learnt from the few incidents related to me by Whippy and others, was highly necessary; orders were also given to prepare the boats of both ships for surveying duties.

I understood that about forty whites had taken up their residence here; but we only found twelve, who were all married to native women, and generally had large families.

We found lying at anchor here a small sloop, about the size of a long-boat, called "Who'd have thought it!" a tender to the ship *Leonidas*, Captain Eagleston, who was at another island curing the biche-de-mar; she was in charge of his first officer, Mr. Winn, who had been about trading for tortoise-shell at the different islands. He reported to me that one of his men had been enticed from the boat, and had been murdered, and probably eaten: this was said to have occurred near Muthuata, on the north side of Vanua-levu. It appeared that Mr. Winn, with only four or five men, had been trading in this small boat, for vessel she could not be called, around the group; they had with them a small skiff or punt, capable of holding only one man. In this one of the crew had been sent on shore, for the purpose of ascertaining whether the natives had any thing to dispose of. On his landing, he was led up from the beach, and never returned. This incident claimed our attention afterwards, and our proceedings in relation to it will be spoken of in their proper place.

On the morning of the 9th, the weather proved fine, and at half-past seven we all went on shore with our instruments. Orders were left with the ship to fire guns, on a signal being given from the top of Andulong. I put up both of the barometers, and made several comparisons, and then left one under charge of an officer to make half-hourly observations. We set off for the peak of Andulong, apparently but a short hour's walk. Our party consisted of about twenty-five officers and the naturalists, all intent upon their different branches of duty. Being entirely unused to so fatiguing a climb, some gave up, and were obliged to return; the strongest of us found no little exertion necessary to overcome the difficulties which beset our path: every now and then a perpendicular rise of fifteen or twenty feet was to be ascended, then a narrow ridge to be crossed, and again a descent into a deep ravine; the whole was clothed with vines at intervals, and the walking was very precarious, from the numbers of roots and slippery mud we encountered; water continually bubbled across our path from numerous rills that were hurrying headlong down the ravines. The last part of the ascent was sharp and steep, having precipices of several hundreds of feet on each side of us. On passing up the path, I saw our native guides each pull a leaf when they came to a spot, and throw it down; on inquiry, Whippy told me it was the place where a man had been clubbed: this was considered as an offering of respect to him, and, if not performed, they have a notion they will soon be killed themselves. Judging from the number of places in which these atonements were made, many victims have suffered in this

way. The path we followed over the mountain was the high road to the interior towns, and the inhabitants of these mountains have the character among the cannibal population of the coast, of being very savage! Just before noon, we reached the top of Andulong, and succeeded in getting the meridian altitude. The scene that now presented itself was truly beautiful; the picturesque valleys of the island of Ovolau lay in full view beneath us, exhibiting here and there spots of cultivated ground, with groves of cocoa-nuts and bread-fruit; the towns perched upon apparently inaccessible spots, overlooking their small domains; the several peaks rising around, all cut and broken in the most grotesque forms, only one of which, that of Dille-ovolau, overtopped the one on which we were, being about two hundred feet higher; around us in the distance, we had the various islands of the group, and the fantastic needle-shaped peaks of Vanua-levu were distinctly seen, although at the distance of sixty miles. The detached reefs could be traced for miles, by the water breaking on them, until they were lost in the haze. The squadron lay quietly beneath us, and every danger that could in any way affect the safety of a vessel was as distinctly marked as though it had been already put upon our charts. Each officer was now directed to observe a series of angles between all the points, peaks, and islands, and to enter the names of them: these were obtained through the interpreters. The barometer was set up, and observations made. The signal was now given, upon which guns were fired from the vessel, while we noted the time that elapsed between seeing the flash and hearing the sound. The angles of depression were also taken of all objects. The results of these different methods gave the altitude of Andulong two thousand and seventy feet.

We remained on the summit until near sunset, and obtained much knowledge relative to the situation of all the islands and reefs that lay around us, which I found of much service in the progress of our work.

During our stay on Andulong, a native came up, who appeared to be under the influence of great fear; he reported that one of the officers had fallen down, and that something was the matter with him. On being asked why he left him, he told us that the chief had said G—d d—n, and that he was afraid that he would kill him. Lieutenant Emmons went down with him, and after a short descent, he found Mr. Eld lying quite exhausted near the path, and it was with difficulty he was enabled to reach the town.

The descent proved more toilsome and dangerous than the ascent; the slipperiness of the path frequently brought us in contact with sharp rocks. I have seldom witnessed a party so helpless as ours appeared, in comparison with the natives and white residents, who ran over the rocks like goats. Darkness overtook us before we reached the town; many of the natives, however, brought torches of dried cocoa-nut leaves to light us on our way, and we reached our respective ships without accident, though much fatigued. Many new specimens were added to our collections, and I believe all felt gratified in having had an opportunity of viewing from so elevated a point this labyrinth of islands, reefs, and sunken shoals.

The island of Ovolau is eight miles in length,

north and south, by seven in breadth, east and west; it is of volcanic formation, and its rocks are composed of a conglomerate or pudding-stone; it is high and rugged throughout. The valleys extend only a short distance into the interior, and leave but little level ground; they are, however, exceedingly fertile, with a deep and rich soil, and are well cultivated. Its harbours are all formed by the reefs, and were it not for these, there would be but few in the group; that of Levuka is safe, has good holding-ground, and is easy of access.

On the 10th, the Flying-Fish was still missing.

Feeling satisfied that Ovolau was the most suitable place for my purpose, I selected a site for my observatory on a projecting insulated point, about thirty feet above the beach, on which was sufficient room to accommodate our tents and houses. I also obtained a few acres of ground from the chief, for the purpose of planting a garden, which was well fenced in, and placed under the direction of our horticulturist, Mr. Brackenridge.

On the 11th, the instruments, tents, &c., were landed and put up. The surprise of the natives was extremely great to find a village or town, as they called it, erected in a few hours, and every thing in order: the guards on post to prevent all intrusion most excited their curiosity.

All the necessary arrangements having been made, the launch and first cutter of the Vincennes, under Lieutenants Alden, Knox, Midshipman Henry, and Assistant-Surgeon Whittle, were despatched to survey the north shore of Viti-levu; the launch and first cutter of the Peacock, under Lieutenant Emmons, Passed-Midshipman Blunt, and Mr. Dyes, to examine and survey the south shore, visiting Viwa, Ambau, and Rewa, the missionary posts: Chaplain Elliott was of the latter party, that he might be enabled to gather information from these establishments; pilots, who acted as interpreters, were sent with both. Orders, of which the following is an extract, were issued to the officers in writing, in relation to the natives, pointing out to them the necessity of watchfulness.

"You will observe the following instructions very particularly, and in no case depart from them, unless it is for the preservation of your party.

"1st. You will avoid landing any where on the main land or islands, unless the latter should be uninhabited.

"2nd. Every precaution must be observed in treating with these natives, and no native must be suffered to come alongside or near your boats, without your boarding-nettings being up; all trading must be carried on over the stern of your boat, and your arms and howitzers ready to repel attack.

"3rd. You will avoid any disputes with them, and never be off your guard, or free from suspicion; they are in no case to be trusted.

"4th. Your two boats must never be separated at night, but anchored as close together as possible.

"You will always keep the boats within signal distance of each other, separating them in cases of extreme necessity only for a short time."

The Flying-Fish now made her appearance, to my great relief. Her delays had been owing to her having run (on the 8th, the night after she

parted company with us), through carelessness, on the reef off the island of Nairai, in fine moonlight, with the reef full in view; here she remained some hours, having had a narrow escape from total wreck; she, however, only lost a part of her false keel. Lieutenant Carr, the first-lieutenant of the Vincennes, was immediately put in command of her. The Peacock and Flying-Fish were now ordered to prepare for sea with all despatch.

I must confess I felt great anxiety for the safety of our parties in the boats, and issued the foregoing orders very particularly, in order to avoid all misapprehension, and to leave as little as possible to the discretion of the officers who had charge of the boats. They were all well armed, and the boats were provided with boarding-nettings; for I felt satisfied that any inattention or want of care would inevitably lead to the destruction, if not of the whole, at least some of the party: the accident that had recently occurred to the tender of the Leonidas, showed that the least degree of confidence reposed in the natives was attended with great risk, and that so treacherous a people were not to be trusted under any circumstances. A departure from these instructions, and an undue confidence, resulting from having for a long time escaped the many dangers encountered, was, I regret to say, the cause of the loss we met with before leaving this group, and taught, when too late, the necessity of obeying strictly the orders of their commanding officer, whether absent or present.

On the 12th, whilst engaged at the observatory, the canoe of Tanoa, the king of Ambau, was discovered rounding the southern point of the island: it had a magnificent appearance, with its immense sail of white mats; the pennants streaming from its yard, denoted it at once as belonging to some great chief. It was a fit accompaniment to the magnificent scenery around, and advanced rapidly and gracefully along; it was a single canoe, one hundred feet in length, with an outrigger of large size, ornamented with a great number (two thousand five hundred) of the cypræa ovula shells; its velocity was almost inconceivable, and every one was struck with the adroitness with which it was managed and landed on the beach*.

Tanoa disembarked, accompanied by his attendants, who are generally Tonga men, forty of whom had the direction and sailing of his canoe. Shortly after landing, he was met by Mr. Vanderford, who had formerly been shipwrecked here, and who had lived under his protection for ten months. The meeting was a curious one: the old chief walked up to him, and stood looking, first on one side and then on the other, without noticing him, and pretending that he did not see him; Mr. Vanderford then walked up to him, clapped him on the back, and called him by name, when they both began laughing heartily. Mr. Vanderford spoke much of the kindness of Tanoa to him during his residence among the people of Ambau: it is true, that he robbed him of every thing but his skin, but then he protected him from the attacks of others. Shortly afterwards a large double canoe arrived,

entirely manned by Tonga people, under their two chiefs, Lajika and Tubou Totai, who were both of them, with about five hundred of their followers, paying Tanoa a visit at Ambau; they were the sons of Tubou Ninha, and nephews of the celebrated Finau. Tubou Totai told me that he and his brothers had been residing several years in the Feejees; that they were employed building canoes on some of the eastern islands, and that it generally took them seven years from the time they left Tonga, to finish them and return.

Tanoa took up his abode in the mbure, or council-house, which is the place where all strangers are entertained. Here he seated himself, with his principal attendants about him, when his orator, or prime minister, made a complimentary oration, at the end of which a clapping of hands took place; to this oration one of the principal townspeople replied. This is the usual mode of conducting the ceremony: the guest, the moment he arrives, gives a condensed account of all his doings since they last saw each other, ending with many compliments; to which the host replies in equally flattering terms, wishing him all kinds of happiness and prosperity. This ceremony being over, Tanoa despatched David Whippy on board to inform me of his arrival, when I immediately sent Lieutenant Carr to call upon him and inform him that my boat would be at the shore in the morning for him. Food was then brought by the Levukians, according to their native custom: it consisted of two large baskets containing each a roasted pig, yams, taro, bread-fruit, &c., which were placed before the company; this present was accompanied by another speech, to which the prime minister again replied; then came clapping of hands, and the feast ended with *ava* drinking.

On the following morning, when the boat landed, the three chiefs were waiting on the beach, and all came on board, the large canoe following the boat; every thing was prepared to give them a most marked reception, excepting the salute. Tanoa was the first to mount the side of the ship, where I was ready to receive him, with the officers at the gangway. When he reached the deck, he was evidently much astonished, particularly when he saw the marines, with their muskets, presenting arms, and so many officers. The novel sight, to him, of my large Newfoundland dog, Sydney, who did not altogether like the sable appearance of his majesty, the noise of the drum and boatswain's pipe, combined to cause him some alarm, and he evinced a disposition to retire, keeping himself close to the ship's side. He was, after the fashion of his group, almost naked, having a small maro passed around his loins, with long ends to it, and a large turban of tapa cloth in folds about his head, so as almost to hide the expression of his countenance; his face was daubed with oil and ivory-black, as were also his long beard and mustaches, the natural hue of which I understood was quite gray. From his begrimed look he has obtained the sobriquet of "Old Snuff," among the whites; he is about sixty-five years old, tall, slender, and rather bent by age; on his breast, hanging from his neck, he wore an ornament made of mother-of-pearl, tortoise-shell, and ivory, not very neatly put together, and as large as a dinner-plate (called *diva ndina*); on his arms he had shell armlets (called *ygato*), made of the trochus-shell, by grinding them down to the form of rings; his countenance was indicative of intelligence and

* I was told that Tanoa frequently amuses himself, when sailing, by running down canoes, leaving those who belong to them to recover their canoe and property the best way they can.

shrewdness, as far as it could be seen; his mind is said to be quite active; he is about five feet ten inches in height, and of small frame; his features are rather inclined to the European mould, and not the least allied to the negro; his hair is crispy; he speaks through his nose, or rather as if he had lost his palate; his body is, like that of all his people, remarkably hairy. After presenting him to the officers, and receiving the rest of his suite, I led him to the after part of the deck, where mats were laid down, and we all seated ourselves to hold a council; for I was anxious to finish first the business for which I had particularly sought the interview; this was to procure the adoption of rules and regulations for the intercourse with foreign vessels, similar to those established in the Samoan Group the year preceding. David Whippy became my interpreter, but Tanoa had too much dignity about him to receive the interpretation through Whippy alone, although he understood all that he said perfectly, for Whippy speaks their language well; but he had his "speech-explaining counsellor," Malani-vanua Vakanduna, or prime minister, who was a remarkably good-looking, intelligent man. Whippy gave his name as Korotumvavalu, and said that he had great influence with the king. It was amusing to see their mode of conducting the business, and to understand that Tanoa's dignity would be offended by holding discourse with our friend Whippy as interpreter; not, however, (as it was explained to me by Tubou Totai,) from any objection he had to Whippy, but it would be derogatory to his rank and station.

On the production of the rules and regulations, Tanoa seemed rather confused, and at first appeared dull and stupid; this I imputed to his aversion to drinking, in which they had all indulged to excess the night before. He did not seem to comprehend the object of them, or as the interpreter expressed it, "could not take the idea." This is not to be wondered at, when it is considered that this was the first act of the kind he had been called upon to do. Tubou Totai being a traveller of some note, readily understood their meaning, and through his explanations Tanoa soon comprehended the object, and listened with attention (his whole suite sitting around) to the reading of them, sentence by sentence; after which he made signs of understanding them, and gave his approval and consent to having them established, and the next day signed them, by making his mark. That which he was to keep I had rolled up and put into a bright round tin case, which he seemed to regard with great pride.

Although I did not anticipate much immediate good from these regulations, yet I was well satisfied they would be of use in restraining the natives as well as masters of ships, and in securing a better understanding between them; at any rate it was a beginning, and would make them feel we were desirous of doing them justice. I talked to him much, through the interpreter, of the necessity of protecting the whites, and of punishing those who molest and take from them their goods in case of shipwreck. He listened to me very patiently, and said, "he had always done so; that my advice was very good, but he did not need it; that I must give plenty of it to his son Seru, and talk hard to him; that he would in a short time be king, and needed it."

We now proceeded to show them the ship. Tanoa expressed great astonishment at the wheel, and the manner of steering our large canoe or man-of-war. I told him I was going to order some guns to be fired with balls, when he immediately expressed his joy at it, saying that he thought I was offended with him, from my not firing when he came on board. On my telling him it was not so, but that he must consider it more honourable to him to fire balls, he was well satisfied. It was amusing to see the curiosity excited among them all, when they understood the large guns were to be fired. On the firing taking place, they all made an exclamation of surprise and astonishment—followed with a cluck of the tongue in a high key, putting their fingers to the mouth, and patting it after the fashion of children, or one of our own Indians in giving the war-whoop. Tanoa would not at first look at the ball flying along and throwing up the water. When the second was fired, he uttered the same marks of surprise as the rest; and after the third, he begged that no more should be fired, as he was amply satisfied with the honour, and the noise almost distracted him. As they went about the ship, when they saw any thing that pleased them, they would say—*vi naka, vi naka*. In expressing their satisfaction for many things, they repeat the words *vi naka* several times very quickly.

Suitable presents were now distributed to Tanoa and suite, consisting of shawls, axes, accordions, plane-irons, whales' teeth, and a variety of other articles, among which was a box of Windsor soap, tobacco, a musket, watch, &c. These were received with clapping of hands, their mode of returning thanks. It was my intention to have had the feast of rice-bread and molasses on board, but I found their numbers so great that I determined on sending it on shore, and only treated them to some weak whiskey and water in lieu of ava, with which they were much pleased. The marines were put through their exercises, marched and counter-marched to the music of the drum and fife, which delighted them extremely. After being three hours on board, hearing that the provisions for the feast had been sent on shore, they desired to depart, and were again landed. The Tongese sang their boat-song as they sculled his canoe; but this custom, according to Whippy, is not practised by the Feejees.

I have scarcely seen a finer-looking set of men than composed the suite of Tanoa. There was a great contrast between the Tongese and Feejees; the former being light mulattoes, while the latter were quite black: their whole make seemed to point out a different origin. The Tongese have small joints, and well-developed and rounded muscles, while the Feejees' limbs are large and muscular; the latter are slender in body, and apparently inured to hard fare and living. The difference in manner was equally great: in the Tongese there was a native grace, combined with fine forms, and an expression and carriage as if educated; whilst there was an air of power and independence in the Feejees, that made them claim attention. They at once strike one as peculiar, and unlike the Polynesian natives, having a great deal of activity both of mind and body; this may be owing, in a great measure, to their constant wars, and the necessity of their being continually on the alert, to

prevent surprise. It was pleasant to look upon the Tongese, but I felt more interest in the Feejees; the contrast was somewhat like that observable between a well-bred gentleman and a boor.

After the king got on shore, they had much talk at the mbure-house, upon all they had seen, and among other things, he remarked, "that my men might be good warriors, but they walked very much like Muscovy ducks," a bird of which they have numbers.

Tanoa sent me word he would like to come and see things without ceremony, to which I readily consented. The next day he came on board, as he said, to look and see for himself; he stayed some hours. When he entered the cabin, I was pouring out some mercury for my artificial horizon, of which I gave him several globules in his hand. He complained of their being hot, and amused himself for a long time in trying to pinch them up, which of course he found it impossible to do, and showed some vexation on being foiled, nipping his fingers together with great vehemence to catch the metal. His actions resembled those of a monkey; he kept looking at his fingers, and seemed astonished that they were not wet, and could not be made to understand how it could wet a button, (which I silvered for him,) and not his fingers. He talked a great deal of the regulations he had signed. I was desirous of knowing whether he fully understood them, which I found he did. I then asked him if it would not be better for his son Seru to sign them also, as he is understood to be the acting chief; he said "no," that his signing was quite sufficient, and made them binding on all the dependencies of Ambau. He desired me, when his son Seru paid me a visit, to talk hard to him, and give him plenty of good advice, for he was a young man, and frisky; but he himself was old, and saw things that were good and bad. He said Seru would visit me in a few days, when he returned, as they could not both leave Ambau at the same time.

The observatory duties were now commenced, and Lieutenant Perry and Mr. Eld were ordered to assist me. I had, while thus employed, ample time to get information from David Whippy, who seemed not only to have acquired the language perfectly, but also a good knowledge of the customs, manners, and habits of the natives.

Ovoulau is divided into four districts, viz. Levuka on the east, Fokambou on the south-west, Barita on the south-east, and Vaki Levuka on the north-west; besides these, there is the interior or mountainous region, called by the natives Livoni. Levuka is *mbati* to the chiefs of Ambau; Fokambou and Barita are *ygali* to the same power, but Vaki Levuka is *ygali* to Levuka, whilst the mountainous regions are independent and predatory. The term *mbati* signifies allies, or being under protection, though not actually subject to it. *Ygali* expresses that they are subjects, and compelled to pay tribute yearly, or obliged to satisfy the demands of the chiefs, whenever made upon them.

Tui Levuka is the principal chief of Ovoulau; his authority extends over eight towns on the east side. He is very friendly to the whites, and is represented by them to be a kind-hearted and honest chief: he is between forty and fifty years of age, and has a pleasing countenance; he rules his village with great popularity. It was amusing

to see his bewilderment in attending to the various duties and offices he had to perform, in providing the large supplies of food, consisting of yams, taro, &c., that were required for our use; he was, however, very industrious, and by the aid of Whippy, got through very well, though with much fear and trembling, lest he should be held accountable for any theft or depredations committed on our property, or accident to our men, in the various occupations that were all going forward at the same time, consisting of watering, wooding, digging gardens, making enclosures, building, as he said, towns, holding markets, and trading all day long for spears, clubs, shells, &c.; he had great fears, too, of exciting the jealousy of the Ambau chiefs, who he judged would not like to see the advantages he was reaping from our lengthened stay, which would naturally enough bring their displeasure upon him. I found him of great use, and was in the habit of receiving from him almost daily, visits at the observatory, so that when Whippy was at a loss for any information relative to the islands, Tui Levuka was always at hand to supply it.

The rest of the island is under the Ambau chiefs, or as they express it, *ygali* to Ambau, excepting the mountaineers, who are easily brought over to fight on any side, and are, from all accounts, true savages. Tui Levuka has never been properly installed into office, although from his courage and talent as a leader, he is highly respected. The circumstance which has prevented this ceremony from taking place was, that the Ambau chiefs succeeded by stratagem in getting possession of Ovoulau about fifteen years ago, or in 1825, before which time it had belonged to Verata, with which Ambau was at war. The Verata chiefs had been always in the habit of installing the chiefs, but since they have lost Ovoulau, they refuse to perform the rite, and the Ambau chiefs will not exercise it, on account of religious dread, and the fear of offending their gods.

The islands of Wakaia and Mokungai, near that of Ovoulau, are under Tui Levuka; they have but few inhabitants. Tui Levuka's eldest son is the chief of Wakaia.

The town of Levuka is much larger than one would imagine on seeing it from the water. Many of the houses are situated on the side of the hill. Its natural position is pretty: it has a fine brook running through it, coming from the gorge in the mountain, the water of which is made great use of for irrigating the taro-patches, which, with their yam-grounds, claim the principal attention of the inhabitants: the natives constantly bathe in it, and are remarkably cleanly in their persons; the evident pleasure they take in the bath is even shared by those who see them sporting in the water.

The Feejee Group is composed of seven districts, and is under as many principal chiefs, viz.:

1st. Ambau.	5th. Somu-somu.
2nd. Rewa.	6th. Naitasiri.
3rd. Verata.	7th. Mbua.
4th. Muthuata.	

All the minor chiefs on the different islands are more or less connected or subject to one of these, and as the one party or the other prevails in their wars, they change masters. War is the constant occupation of the natives, and engrosses all their time and thoughts.

Ambau is now the most powerful of these districts, although it is in itself but a small island on the coast, and connected with Vitilevu; but it is the residence of most of the great chiefs, and, as I have before observed, Tanoa, the most powerful chief of all the islands, lives there. The original inhabitants of Ambau were called Kai Levuka, and are of Tonga descent. During the absence of most of the natives on a trading voyage to Lakemba, the natives of Moturiki, a neighbouring island, made a descent upon Ambau, and took possession of it, ever since which the Kai Levuka have remained a broken people: they still retain their original name, but are now only wandering traders; they have no fixed place of residence, and are somewhat of the character of the Jews. They reside principally at Lakemba, Somu-somu, Vuna, and occasionally at other islands. Most of the exchange trade is in their hands; their hereditary chief resides at Lakemba; they are much respected, and when they visit Ambau, they are treated with the best of every thing, in acknowledgment of their original right to the soil. At Ambau there are now two classes, one known by the name of Kai Ambau, or original people of Ambau, and the other as Kai Lasikau, who were introduced from a small island near Kantavu, some sixty years since, to fish for the chiefs; these are considered as inferior to Kai Ambau, but are not exactly slaves. About eight years before our arrival, dissensions arose between these two classes, which resulted in Tanoa's being expelled, and obliged to seek refuge in another part of his dominions.

According to Whippy, at the commencement of the present century, Bamivi ruled at Ambau; he was succeeded by his son Ulivou. At this time Verata was the principal city of the Feejees, and its chiefs held the rule: this city or town is about eight miles from Ambau, on Vitilevu; the islands of Ovolau, Goro, Ambatikki, Angau, and others were subject to it, as was also Rewa. The introduction of fire-arms brought about a great change of power; this happened in the year 1809. The brig Eliza was wrecked on the reef off Nairai, and had both guns and powder on board. Nairai was at this time a dependency of Ambau, and many of the crew, in order to preserve their lives, showed the natives the use of (to them) the new instrument. Among the crew was a Swede, called Charley Savage, who acted a very conspicuous part in the group for some few years. These men joined the Ambau people, instructed them in the use of the musket, and assisted them in their wars. The chief of Ambau was at that time Ulivou, who gladly availed himself of their services, granting them many privileges; among others, it is said that Charley Savage had a hundred wives! Taking advantage of all the means he now possessed to extend his own power and reduce that of Verata, he finally succeeded, either by fighting or intrigue, in cutting off all its dependencies, leaving the chief of Verata only his town to rule over.

In the early part of Ulivou's reign a conspiracy broke out against him, but he discovered it, and was able to expel the rebels from Ambau. They fled to Rewa, where they made some show of resistance; he however overcame them. They then took refuge on Goro, where he again sought them, pursued them to Somu-somu, and drove them thence. Their next step was to go to Lakemba, in

order to collect a large fleet of canoes and riches, for the purpose of gaining allies on Vitilevu; but they were again pursued, and being met with at sea, were completely destroyed. This fully established Ulivou's authority, and the latter part of his reign was unmarked by any disturbances or rebellion against his rule. He died in 1829. Tanoa, his brother, the present king, was at this time at Lakemba, on one of the eastern islands, engaged, according to Whippy, in building a large canoe, which he named Ndranuivio (the via-leaf), a large plant of the arum species. When the news reached him he immediately embarked for Ambau, and on his arrival found all the chiefs disposed to make him king. It is said that he at first refused the dignity, lest "they should make a fool of him;" but by promises and persuasion he was induced to accede. Preparations were accordingly made to install him. This ceremony is performed by the Levuka people, the original inhabitants of Ambau, uniting with those of Kamba, inhabiting a town near Kamba Point, the most eastern point of Vitilevu, and about ten miles east of Ambau. As soon as the chiefs of Ambau have elected a king, they make a grand ava party, and the first cup is handed to the newly-elected chief, who receives the title of Vunivalu. Some time after this, the Kamba and Levuka people are called in to make the installation, and confer the title of royalty. It is related, that while the preparations for this ceremony were going on, the chiefs of Ambau were restless, and determined to make war upon Rewa, a place always in rivalry, about fifteen miles distant from Ambau, to the south. Tanoa, however, was well disposed towards the people of this district, being a Vasu of Rewa. There are three kinds of Vasus, Vasu-togai, Vasulevu, and Vasu. The first is the highest title, and is derived from the mother being queen of Ambau. Vasulevu is where the mother is married to one of the great chiefs of Rewa, Somu-somu, or Muthuata, and the name of Vasu extends not only to the minor chiefs, but also down to the common people. It confers rights and privileges of great extent, and is exclusively derived from the mother being a high chief or wife of some of the reigning kings. It gives the person a right to seize upon and appropriate to his own use any thing belonging to an inhabitant of his mother's native place, and even the privilege of taking things from the sovereign himself, and this without resistance, dispute, or hesitation, however much prized or valuable the article may be. In the course of this narrative, some instances of the exercise of this power will be related. Tanoa therefore used all his efforts to prevent an outbreak, but without success, and he was compelled to carry on the war. He, however, secretly gave encouragement, and, it is said, even assistance, to the opposite party; this becoming known, produced much difficulty and discontent among the Ambau chiefs and people. Notwithstanding this, he at length contrived to bring about a truce, and invited many of the Rewa chiefs and people to visit him, whom he received with great distinction. This incensed his new subjects very much; and on his presenting to the late enemy his new and large canoe, Ndranuivio, their indignation was greatly increased, and caused some of them even to enter into a plot to murder him. Among the conspirators were the head chiefs, Seru

Tanoa, Komaivunindavu, Mara, and Dandan, of Ambau, Ngiondrakete, chief of Nikelo, and Masomalua, of Viwa. Tanoa, on being advised of this, took no means to frustrate their plans openly, but appears to have been somewhat on his guard.

In the third year of his reign, whilst on a visit to Ovalau to attend to his plantation of yams, the rebellion broke out, of which he was soon advised, and fled to Goro, where his enemies followed him; but he continued his flight to Somu-somu, the people of which had been always his friends and supporters. Here he found protection, his defenders being too numerous for his enemies. The conspirators tried, however, to urge upon them the propriety of giving up their king, saying that they only desired he should return and reign over them; but the people of Somu-somu deemed this too shallow a pretence to be listened to. After Tanoa's expulsion, the rebels installed his brother Komainokarinakula as king. Tanoa remained under the protection of the chief of Somu-somu for three years, in gratitude for which he made over to him all the windward islands, viz. Lakemba, Naiau, &c. During all this period, Tanoa was carrying on a sort of warfare against the rebels, with the aid of the natives of the eastern group and those of Rewa, who remained faithful to him, encouraging them all in his power, collecting his revenue from the former, which he distributed bountifully among his adherents, and buying over others to his interests.

As Tanoa was about to sail for Lakemba, word was brought to him, that his nephew, called Nona, residing on Naiau, a neighbouring island, had been bribed by the chiefs to put him to death. He therefore, on his way, stopped at Naiau, and when his nephew approached him under the guise of friendship, Tanoa at once caused him, with all his family and adherents, to be seized and put to death.

Tanoa, finding his strength increasing, concluded to prosecute the war with more activity. In order to do so, after having first collected all his means, he removed to Rewa, where he established himself, and began his secret intrigues to undermine and dissipate his enemies' forces. He was so successful in this, that in a short time he had gained over all their allies, as well as the towns on the main land or large island in the vicinity, and even many of the chiefs at Ambau. The latter object was effected through the influence of his son, Ratu Seru, who had been suffered to remain there during the whole war, although not without frequent attempts being made on his life, which he escaped from through his unceasing vigilance and that of his adherents. During the latter part of the time, he was constantly in communication with his father, who kept him well supplied with the articles in which the riches of the natives consist: these were liberally distributed among the Lasikaus, or fishermen, and gained the most of this class over to his interests. All things being arranged, on a certain day the signal was given, and most of the allies declared for Tanoa. Whilst the rebel chiefs were in consternation at this unexpected event, the Lasikaus rose and attacked them. A severe contest ensued; but it is said the fishermen, having built a wall dividing their part of the town from that of the Ambau people, set fire to their opponents' quarter, and reduced it to ashes. The latter fled for

refuge to the main land, across the shallow isthmus, but found themselves here opposed by the king with his army, who slaughtered all those who had escaped from Ambau. This done, Tanoa entered Ambau in triumph, and receiving the submission of all the neighbouring towns, resumed the government, after an absence of five years. This recovery of his kingdom took place in 1837. Being thus re-established, Tanoa, in order effectually to destroy his enemies, sent messages to the different towns, with presents, to induce the inhabitants of the places whither the rebels had fled to put them to death. In this he soon succeeded, and their former friends were thus made the instruments of their punishment. Tanoa having succeeded in establishing his rule, put a stop to all further slaughter; but all the principal chiefs who had opposed him, except Masomalua, of Viwa, had been slain. Tanoa's authority was now acknowledged in all his former dominions; but this has not put an end to the petty wars. The three chief cities, Ambau, Rewa, and Naitasiri, are frequently at war, notwithstanding they are all three closely connected by alliances with each other. Here, in fact, is the great seat of power in the group, though it varies occasionally. These three places form, as it were, a triangle, the two former being on the north and south coasts, while that of Naitasiri is situated inland, on the Wailevu, or Peale's river. These disturbances most frequently occur between Ambau and Rewa. Tanoa takes no part in these contests, but when he thinks the belligerents have fought long enough he sends the Rewa people word to "come and beg pardon," after the Feejee custom, which they invariably do, even though they may have been victorious.

Mr. Brackenridge, our horticulturist, was soon busily engaged in preparing the garden for our seeds. I had been anxious that this should be done as soon as possible, in order that we might have a chance of seeing it in a prosperous state before we left the island; and I feel much indebted to him for the zeal he manifested. About twenty natives were employed in putting up the fence, the chief having agreed with each of them to make two fathoms of it. Some were employed in clearing away the weeds, and others in bringing reeds and stakes down from the mountains. Mr. Brackenridge marked out the line for the fence, but they could not be induced to follow it, or observe any regularity, each individual making his allotted part according to his own fancy; these separate portions were afterwards joined together, forming a zigzag work. The parts of the enclosure were tied together by a species of dolichos, crossed, braced, and wattled like basket-work, the whole making a tight fence, which answered the purpose well enough.

The digging of the ground was performed with a long pointed pole, which they thrust into the ground with both hands, and by swinging on the upper end, they contrived to raise up large pieces of the soil, which was quite hard. After this, two sailors with spades smoothed it. The centre of the garden had been a repository for their dead, where many stones had once been placed, which had become scattered. These the natives were told to throw in a pile in the centre. They went on digging for some time, probably without an idea

that any one had been buried there, but as they approached the pile they simultaneously came to a stop, and began to murmur among themselves, using the words *mate mate*. No inducement could persuade them to proceed, until it was explained to them by David Whippy, that there was no desire to dig in the direction of the grave, which was to be left sacred. With this intimation they seemed well satisfied, and went on digging merrily. A large quantity of seeds, of various kinds of vegetables and fruits, were planted. For the fencing and digging of the garden I gave, by agreement, a trade musket, and I believe this included the purchase of the ground !

The day after Tanoa's visit, I received from him a royal present of ten hogs, a quantity of yams, taro, fruit, &c.

Our stay at Ovolau continued for six weeks. Among the incidents which occurred during this time were the following :

On the 17th May, David Bateman died. He had been a marine on board the Porpoise, and had been transferred to the Vincennes at Tonga. A post mortem examination showed that the right lung was almost-wholly destroyed by disease, and there was about a pint of purulent matter in the pleura.

On the 19th, Seru, the son of Tanoa, arrived from Ambau, for the purpose of visiting me. I immediately sent him and his suite an invitation to meet me at the observatory on the following day, with which he complied. Seru is extremely good-looking, being tall, well-made, and athletic. He exhibits much intelligence both in his expression of countenance and manners. His features and figure resemble those of a European, and he is graceful and easy in his carriage. The instruments at the observatory excited his wonder and curiosity. He, in common with the other natives, believed that they were intended for the purpose of looking at the Great Spirit, and in consequence paid them the greatest respect and reverence. This opinion saved us much trouble, for they did not presume to approach the instruments; and although some of them were always to be found without the boundary which had been traced to limit their approach, they never intruded within it. They always behaved civilly, and said they only came to sara-sara (look-on).

I afterwards took Seru on board the Vincennes, where, as his father had recommended, I gave him plenty of good advice, to which he seemed to pay great attention. I had been told that he would probably exhibit hauteur and an arrogant bearing, but he manifested nothing of the kind. He appeared rather, as I had been told by his father I would find him, "young and frisky." He was received with the same attentions that had been paid to his father. The firing of the guns seemed to take his fancy much, and he was desirous that I should gratify him by continuing to fire them longer; but I was not inclined to make the honours paid to him greater than those rendered to his father, knowing how observant they are of all forms. The whole party, himself included, showed more pleasure and were much more liberal in their exclamations of *vi naka! vi naka!* and *whoo!* using them more energetically than the king's party, as might be naturally expected from a younger set of natives. Seru is quite ingenious; he took the musket

given him to pieces as quickly, and used it with as much adroitness as if he had been a gunsmith. His ambati (priest) was with him, and the party all appeared greatly delighted with the ship. On the whole I was much pleased with him during his visit; shortly afterwards, he, however, visited the ship during my absence, and displayed a very different bearing, so much so as to require to be checked. I learned a circumstance which would serve to prove that the reputation he bears is pretty well founded. He on one occasion had sent word to one of the islands (Goro, I believe), for the chief to have a quantity of cocoa-nut oil ready for him by a certain time. Towards the expiration of the specified interval, Seru went to the island and found it was not ready. The old chief of the island pleaded the impossibility of compliance, from want of time, and promised to have it ready as soon as possible. Seru told him he was a great liar, and without further words, struck him on the head and killed him on the spot. This is only one of many instances of the exercise of arbitrary authority over their vassals.

One day, while at the observatory, I was greatly surprised at seeing one whom I took to be a Feejee-man enter my tent, a circumstance so inconsistent with the respect to our prescribed limit, of which I have spoken. His colour, however, struck me as lighter than that of any native I had yet seen. He was a short wrinkled old man, but appeared to possess great vigour and activity. He had a beard that reached to his middle, and but little hair, of a reddish grey colour, on his head. He gave me no time for inquiry, but at once addressed me in broad Irish, with a rich Milesian brogue. In a few minutes he made me acquainted with his story, which, by his own account, was as follows.

His name was Paddy Connel, but the natives called him Berry; he was born in the county of Clare in Ireland; had run away from school when he was a little fellow, and after wandering about as a vagabond, was pressed into the army in the first Irish rebellion. At the time the French landed in Ireland, the regiment to which he was attached marched at once against the enemy, and soon arrived on the field of battle, where they were brought to the charge. The first thing he knew or heard, the drums struck up a White Boys' tune, and his whole regiment went over and joined the French, with the exception of the officers, who had to fly. They were then marched against the British, and were soon defeated by Lord Cornwallis; it was a hard fight, and Paddy found himself among the slain. When he thought the battle was over, and night came on, he crawled off and reached home. He was then taken up and tried for his life, but was acquitted; he was, however, remanded to prison, and busied himself in effecting the escape of some of his comrades. On this being discovered, he was confined in the black hole, and soon after sent to Cork, to be put on board a convict-ship bound to New South Wales. When he arrived there, his name was not found on the books of the prisoners, consequently he had been transported by mistake, and was, therefore, set at liberty. He then worked about for several years, and collected a small sum of money, but unfortunately fell into bad company, got drunk, and lost it all. Just about this time Captain Sartori, of the ship General Wellesley, arrived at Sydney. Having

lost a great part of his crew by sickness and desertion, he desired to procure hands for his ship, which was still at Sandalwood Bay, and obtained thirty-five men, one of whom was Paddy Connel. At the time they were ready to depart, a French privateer, *Le Gloriant*, Captain Dubardieu, put into Sydney, when Captain Sartori engaged a passage for himself and his men to the Feejees. On their way they touched at Norfolk Island, where the ship struck, and damaged her keel so much that they were obliged to put into the Bay of Islands for repairs. Paddy asserts that a difficulty had occurred here between Captain Sartori and his men about their provisions, which was amicably settled. The *Gloriant* finally sailed from New Zealand for Tongataboo, where they arrived just after the capture of a vessel, which he supposed to have been the *Port au Prince*, as they had obtained many articles from the natives, which had evidently belonged to some large vessel. Here they remained some months, and then sailed for Sandalwood Bay, where the men, on account of their former quarrel with Captain Sartori, refused to go on board the *General Wellesley*: some of them shipped on board the *Gloriant*, and others, with Paddy, determined to remain on shore with the natives. He added, that Captain Sartori was kind to him, and at parting had given him a pistol, cutlass, and an old good-for-nothing musket; these, with his sea-chest and a few clothes, were all that he possessed. He had now lived forty years among these savages. After hearing his whole story, I told him I did not believe a word of it; to which he answered, that the main part of it was true, but he might have made some mistakes, as he had been so much in the habit of lying to the Feejees, that he hardly now knew when he told the truth, adding

that he had no desire to tell any thing but the truth.

Paddy turned out to be a very amusing fellow, and possessed an accurate knowledge of the Feejee character. Some of the whites told me that he was more than half Feejee; indeed he seemed to delight in showing how nearly he was allied to them in feeling and propensities; and, like them, seemed to fix his attention upon trifles. He gave me a droll account of his daily employments, which it would be inappropriate to give here, and finished by telling me the only wish he had then, was to get for his little boy, on whom he doted, a small hatchet, and the only articles he had to offer for it were a few old lenses. On my asking him if he did not cultivate the ground, he said at once no, he found it much easier to get his living by telling the Feejees stories, which he could always make good enough for them; these, and the care of his two little boys, and his hens, and his pigs, when he had any, gave him ample employment and plenty of food. He had lived much at Rewa, and until lately had been a resident at Levuka, but had, in consequence of his intrigues, been expelled by the white residents, to the island of Ambatiki. It appeared that they had unanimously come to the conclusion that if he did not remove, they would be obliged to put him to death for their own safety. I could not induce Whippy or Tom to give me the circumstances that occasioned this determination, and Paddy would not communicate more than that his residence on Ambatiki was a forced one, and that it was as though he was living out of the world, rearing pigs, fowls, and children. Of the last description of live stock he had forty-eight, and hoped that he might live to see fifty born to him. He had had one hundred wives.

CHAPTER XXIII.

CUSTOMS OF THE FEEJEE GROUP.

INTRODUCTORY REMARKS—PERSONAL APPEARANCE OF THE NATIVES—THEIR EXPRESSION OF COUNTENANCE—THEIR CHARACTER—DIVISION OF TRIBES AND RANK—VASUS—FEEJEE WARS—CEREMONIES IN DECLARING WAR—ADDRESSES TO THE WARRIORS—FLAGS—FORTIFICATIONS—SIEGES—MODE OF BEGGING FOR PEACE—CEREMONIES OF A CAPITULATION—SUBJECT TRIBES—RELIGION—TRADITION OF THE ORIGIN OF RACES AND OF A DELUGE—GODS—BELIEF IN SPIRITS—NDENGEL, THEIR SUPREME GOD—HIS SONS—INFERIOR GODS—OTHER RELIGIOUS OPINIONS—IDEA OF A SECOND DEATH—MBURES OR SPIRIT-HOUSES—AMBATI OR PRIESTS—THEIR JUGGLERY—THEIR INFLUENCE—ORACLE AT LEVUKA—SACRIFICES—RELIGIOUS FESTIVALS—MARRIAGES—INFIDELITY AND ITS PUNISHMENT—BIRTHS—CONSEQUENCES OF THE RELIGIOUS BELIEF—PARENTS PUT TO DEATH—SUICIDE—WIVES STRANGLED AT FUNERALS—DEFORMED AND DISEASED PERSONS PUT TO DEATH—HUMAN SACRIFICES—FUNERAL RITES—MOURNING—CANNIBALISM—PRICE OF HUMAN LIFE—ATTACKS ON FOREIGN VESSELS—CASE OF THE CHARLES DOGGETT, AN AMERICAN BRIG—VENDOVÍ'S PARTICIPATION—RESOLUTION IN REGARD TO HIM.

BEFORE proceeding to the narration of the operations of the squadron in the Feejee Group, it would appear expedient to give some account of the people who inhabit the islands of which it is composed. A reader unacquainted with their manners and customs can hardly appreciate the difficulties with which the performance of our duties was attended, or the obstacles which impeded our progress. Our information, in relation to the almost unknown race which occupies the Feejee Group,

was obtained from personal observation, from the statements of the natives themselves, and from white residents. I also derived much information from the missionaries, who, influenced by motives of religion, have undertaken the arduous, and as yet unprofitable task, of introducing the light of civilization and the illumination of the Gospel into this benighted region.

Although, as we shall see, the natives of Feejee have made considerable progress in several of the

useful arts, they are, in many respects, the most barbarous and savage race now existing upon the globe. The intercourse they have had with white men has produced some effect on their political condition, but does not appear to have had the least influence in mitigating the barbarous ferocity of their character. In this group, therefore, may be seen the savage in his state of nature; and a comparison of his character with that of the natives of the groups in which the Gospel has been profitably preached, will enable our readers to form a better estimate of the value of missionary labours than can well be acquired in any other manner.

The Feejeeans are generally above the middle height, and exhibit a great variety of figure. Among them the chiefs are tall, well-made, and muscular; while the lower orders manifest the meagreness arising from laborious service and scanty nourishment. Their complexion lies, in general, between that of the black and copper-coloured races, although instances of both extremes are to be met with, thus indicating a descent from two different stocks. One of these, the copper-coloured, is no doubt the same as that whence the Tongese are derived.

None of them equal the natives of Tonga in beauty of person. The faces of the greater number are long, with a large mouth, good and well-set teeth, and a well-formed nose. Instances, however, are by no means rare, of narrow and high foreheads, flat noses, and thick lips, with a broad short chin; still they have nothing about them of the negro type. Even the frizzled appearance of the hair, which is almost universal, and which at first sight seems a distinct natural characteristic, I was, after a long acquaintance with their habits, inclined to ascribe to artificial causes. Besides the long bushy beards and mustaches, which are always worn by the chiefs, they have a great quantity of hair on their bodies. This, with the peculiar proportion between their thighs and the calves of their legs, brings them nearer to the whites than any of the Polynesian races visited by us.

The eyes of the Feejeeans are usually fine, being black and penetrating. Some, however, have them red and bloodshot, which may probably be ascribed to ava drinking.

The expression of their countenances is usually restless and watchful; they are observing and quick in their movements.

The hair of the boys is cropped close, while that of the young girls is allowed to grow. In the latter it is to be seen naturally arranged in tight cork-screw locks, many inches in length, which fall in all directions from the crown of the head. The natural colour of the hair of the girls can hardly be ascertained, for they are in the habit of acting upon it by lime and pigments, which make it white, red, brown, or black, according to the taste of the individual.

When the boys grow up, their hair is no longer cropped, and great pains is taken to spread it out into a mop-like form. The chiefs, in particular, pay great attention to the dressing of their heads, and for this purpose all of them have barbers, whose sole occupation is the care of their masters' heads. The duty of these functionaries is held to be of so sacred a nature, that their hands are tabooed from all other employment, and they are

not even permitted to feed themselves*. To dress the head of a chief occupies several hours, and the hair is made to spread out from the head, on every side, to a distance that is often eight inches. The beard, which is also carefully nursed, often reaches the breast, and when a Feejeean has these important parts of his person well dressed, he exhibits a degree of conceit that is not a little amusing.

In the process of dressing the hair, it is well anointed with oil, mixed with a carbonaceous black, until it is completely saturated†. The barber then takes the hair-pin, which is a long and slender rod, made of tortoise-shell or bone, and proceeds to twitch almost every separate hair. This causes it to frizzle and stand erect. The bush of hair is then trimmed smooth, by singeing it, until it has the appearance of an immense wig. When this has been finished, a piece of tapa, so fine as to resemble tissue-paper, is wound in light folds around it, to protect the hair from dew or dust. This covering, which has the look of a turban, is called sala, and none but chiefs are allowed to wear it; any attempt to assume this head-dress by a kaisi, or common person, would be immediately punished with death. The sala, when taken care of, will last three weeks or a month, and the hair is not dressed except when it is removed; but the high chiefs and dandies seldom allow a day to pass without changing the sala, and having their hair put in order.

The Feejeeans are extremely changeable in their disposition. They are fond of joking, indulge in laughter, and will at one moment appear to give themselves up to merriment, from which they in an instant pass to demon-like anger, which they evince by looks which cannot be misunderstood by those who are the subjects of it, and particularly if in the power of the enraged native. Their anger seldom finds vent in words, but has the character of sullenness. A chief, when offended, seldom speaks a word, but puts sticks in the ground, to keep the cause of his anger constantly in his recollection. The objects of it now understand that it is time to appease him by propitiatory offerings, if they would avoid the bad consequences. When these have been tendered to the satisfaction of the offended dignity, he pulls up the sticks as a signal that he is pacified.

According to Whippy, who had an excellent opportunity of judging, the Feejeeans are addicted to stealing, are treacherous in the extreme, and, with all their ferocity, cowards. The most universal trait of their character is their inclination to lying. They tell a falsehood in preference, when the truth would better answer their purpose; and in conversing with them, the truth can be only obtained by cautioning them not to talk like a Feejee man, or, in other words, not to tell any lies.

Adroit lying is regarded as an accomplishment, and one who is expert at it is sure of a comfortable subsistence and a friendly reception wherever he goes. Their own weakness in this respect does not render them suspicious, and nothing but what is

* These barbers are called a-vu-ni-ulu. They are attached to the household of the chiefs in numbers of from two to a dozen.

† The oil is procured by scraping and squeezing a nut called *maiketū*; the black is prepared from the *laudi* nut.

greatly exaggerated is likely to be believed. In illustration of the latter trait, I was told by Paddy Connel, that he never told them the truth when he wished to be believed, for of it they were always incredulous. He maintained that it was absolutely necessary to tell them lies in order to receive credence.

Covetousness is probably one of the strongest features of the Feejean character, and is the incentive to many crimes. I have, however, been assured, that a white man might travel with safety from one end of an island to the other, provided he had nothing about him to excite their desire of acquisition. This may be true, but it is impossible to say that even the most valueless article of our manufactures might not be coveted by them. With all this risk of being put to death, hospitable entertainment and reception in their houses is almost certain, and while in them, perfect security may be relied on. The same native who within a few yards of his house would murder a coming or departing guest for sake of a knife or a hatchet, will defend him at the risk of his own life as soon as he has passed his threshold.

The people of the Feejee Group are divided into a number of tribes, independent and often hostile to each other. In each tribe great and marked distinctions of rank exist. The classes which are readily distinguished are as follows: 1. kings; 2. chiefs; 3. warriors; 4. landholders (matanivanua); 5. slaves (kai-si). The last have nominally little influence; but in this group, as in other countries, the mere force of numbers is sufficient to counterbalance or overcome the force of the prescriptive rights of the higher and less numerous classes. This has been the case at Ambau, where the people at no distant period rose against and drove out their kings.

Among the most singular of the Feejee customs, and of whose origin it is difficult to form a rational opinion, is that which gives certain rights to a member of another tribe, who is called Vasu (nephew). To give an idea of the character of this right, and the manner in which it is exercised, I shall cite the case of Tanoa. He, although the most powerful chief in the group, feels compelled to comply with, and acknowledges Thokanauto (better known to foreigners as Mr. Phillips) as Vasu-togai of Ambau, who has in consequence the right of sending thither for any thing he may want, and even from Tanoa himself. On Tanoa's first visit to me, among other presents, I gave him one of Hall's patent rifles. This Thokanauto heard of, and determined to have it, and Tanoa had no other mode of preserving it than by sending it away from Ambau. When Rivaletta, Tanoa's youngest son, visited me one day at the observatory, he had the rifle with him, and told me that his father had put it into his hands, in order that it might not be demanded.

Afterwards, when Thokanauto himself paid me a visit, he had in his possession one of the watches that had been given to Seru, and told me openly that he would have the musket also. While at Levuka, he appropriated to himself a canoe and its contents, leaving the owner to find his way back to Ambau as he could. The latter made no complaint, and seemed to consider the act as one of course.

When the Vasu-togai or Vasu-levu of a town or

district visits it, he is received with honours even greater than those paid to the chief who rules over it. All bow in obedience to his will, and he is received with clapping of hands and the salutation, "O sa vi naka lako mai vaka turanga Ratu Vasu-levu;" (Hail! good is the coming hither of our noble Lord Nephew).

When the Vasu-levu of Mbenga goes thither, honours almost divine are rendered him, for he is supposed to be descended in a direct line from gods. Mbenga formerly played a very conspicuous part in the affairs of the group, but of late years it happened to get into difficulties with Rewa, in consequence of which Ngaraningiou attacked it, conquered its inhabitants, and massacred many of them. Since that time it has had little or no political influence.

The hostile feelings of the different tribes makes war the principal employment of the males throughout the group; and where there is so strong a disposition to attack their neighbours, plausible reasons for beginning hostilities are not difficult to find. The wars of the Feejeans usually arise from some accidental affront or misunderstanding, of which the most powerful party takes advantage to extend his dominions or increase his wealth. This is sometimes accomplished by a mere threat, by which the weaker party is terrified into submission to the demand for territory or property.

When threats fail, a formal declaration of war is made by an officer, resembling in his functions the heralds (feciales) of the Romans. Every town has one of these, who is held in much respect, and whose words are always taken as true. When he repairs to the town of the adverse party, where he is always received with great attention, he carries with him an ava root, which he presents to the chiefs, saying, "Korai sa tatau, sa kalu" (I bid you goodbye, it is war). The usual answer is, "Sa vi naka, sa lako talo ki" (It is well, return home). Preparations are then made on both sides, and when they mean to have a fair open fight, a messenger is sent from one party to ask the other, what town they intend to attack first. The reply is sometimes true, but is sometimes intended merely as a cover for their real intentions. In the latter case, however, it rarely succeeds; in the former, both parties repair to the appointed place.

In preparing for war, and during its continuance, they abstain from the company of women; and there were instances related to me, where this abstinence had continued for several years.

When a body made up of several tribes has approached near the enemy, the vunivalu, or general, makes a speech to each separate tribe. In this he does all in his power by praises, taunts, or exhortations, as he thinks best suited to the purpose, to excite them to deeds of bravery. To one he will talk in the following manner:

"You say you are a brave people. You have made me great promises, now we will see how you will keep them. To me you look more like slaves than fighting men."

Or thus: "Here are these strangers come to fight with us. Let us see who are the best men."

To another tribe he will say, "Where do you come from?" Some one of the tribe starts up, and striking the ground with his club, replies by naming its place of residence. The vunivalu then con-

tinues, "Ah ! I have heard of you ; you boast yourselves to be brave men ; we shall see what you are ; I doubt whether you will do much. You seem to be more like men fit to plant and dig yams than to fight."

After he has thus gone through his forces, he cries out : "Attend !" On this the whole clap their hands. He then tells them to prepare for battle, to which they answer, "Mana ndina" (it is true).

In some parts of the group the forces are marshalled in bands, each of which has a banner or flag, under which it fights. The staff of these flags (druatina) is about twenty feet in length, and the flags themselves, which are of corresponding dimensions are made of tapa. As an instance, the forces of Rewa are arranged in four bands, viz. :—

1. The Valevelu, or king's own people, who are highest in rank, and held in the greatest estimation.

2. The Niaku ne tumbua, the people of the vuni-
valu, or fighting chief.

3. The Kai Rewa, or landholders of Rewa.

4. The Kai Ratu, which is composed of the offspring of chiefs by common women.

The flags are distinguished from each other by markings : that of the Valevelu has four or five vertical black stripes, about a foot wide, with equal spaces of white left between them ; the rest of the flag is white.

In the flag of the vunivalu the black and white stripes are horizontal.

The flag of the Kai Rewa is all white.

The Kai Ratu use, as flags, merely strips of tapa, or array themselves under the flag of a chief. Each of the first three bands is kept distinct, and fights under its own flag, in the place which the commander appoints. The flag of the latter is always longest, and is raised highest, whether he be king or only vunivalu. To carry a flag is considered as a post of the greatest distinction, and is confined to the bravest and most active of the tribe.

A town, when besieged, has also its signal of pride. This consists of a sort of kite, of a circular shape, made of palm-leaves, and decorated with ribands of white and coloured tapa. When an enemy approaches the town, if the wind be favourable, the kite is raised by means of a very long cord. The cord is passed through a hole made near the top of a pole thirty or forty feet in height, which is erected in a conspicuous part of the town. The cord is then drawn backwards and forwards through the hole, in such a manner as to be kept floating as a signal of defiance, immediately over the approaching enemy. The attacking party, excited by this, rush forward with their flag, and plant it as near the walls as possible. If the garrison be sufficiently strong they will sally out and endeavour to take the flag ; for it is considered as a great triumph to capture a flag, and a foul disgrace to lose one.

When flags are taken, they are always hung up as trophies in the mbure ; and in that of Levuka I saw many small ones suspended, which, as I was informed by Whippy, had been taken from mountaineers of the interior of the island.

The towns are usually fortified with a strong palisade made of bread-fruit or cocoa-nut trees,

around which is a ditch partly filled with water. There are usually two entrances, in which are gates, so narrow as to admit only one person at a time. The village of Waitora, about two miles to the north of Levuka, is justly considered by the natives as a place of great strength. This was visited by Messrs. Hale and Sandford, who give the following description of it. It is situated upon a hill, and can be approached only by a narrow path along the sloping edge of a rocky ridge. At the extremity of this path is a level space of about an acre in extent, which is surrounded by a stone wall, and filled with houses. In the centre is a rock, about twenty feet high, and one hundred feet square. The top of this is reached by a natural staircase, formed by the roots of a banyan tree, which insert themselves in the crevices of the rock. The tree itself, with its numerous trunks, spreads out and overshadows the whole of the rock. A house stands in the middle of the rock. This contains two Feejee drums, which, when struck, attract crowds of natives together.

Some of the principal towns are not fortified at all. This is the case with Ambau, Muthuata, and Rewa. The fortifications of which we have spoken, whether palisades and ditch or stone walls, are constructed with great ingenuity, particularly the holds to which they retire when hard pressed. For these a rock or hill, as inaccessible as possible, is chosen, with a small level space on the top. Around this space a palisade is constructed of upright posts of cocoa-nut tree, about nine inches in diameter, and about two feet apart. To the outside of these wicker-work is fastened with strong lashings of sennit. Over each entrance is a projecting platform, about nine feet square, for the purpose of guarding the approach by hurling spears and shooting arrows. The gates or entrances are shut by sliding bars from the inside, and are defended on each side by structures of strong wicker-work, resembling bastions, which are placed about fifteen feet apart. When there is a ditch, the bridge across it is composed of two narrow logs. The whole arrangement affords an excellent defence against any weapons used by the natives of these islands, and even against musketry.

Sieges of these fortified places seldom continue long ; for if the attacking party be not speedily successful, the want of provisions, of which there is seldom a supply for more than two or three days, compels them to retire. Although such assaults are of short duration, the war often continues for a long time without any decisive result.

If one of the parties desires peace, it sends an ambassador, who carries a whale's tooth, as a token of submission. The victorious party often requires the conquered to yield the right of soil, in which case the latter bring with them a basket of the earth from their district. The acceptance of this is the signal of peace, but from that time the conquered become liable to the payment of a yearly tribute. In addition to this burden, the more powerful tribes often send word to their dependencies that they have not received a present for a long time ; and if the intimation has no effect, the message is speedily followed by an armed force, by which the recalcitrant tribe or town is sometimes entirely destroyed. The bearer of such a message carries with him a piece of ava, which is

given to the chief of the town in council, who causes it to be brewed, after which the message is delivered. But when an errand is sent to Ambau, or any superior chief, the messenger always carries with him a gift of provisions and other valuables.

If a town is compelled to entreat to be permitted to capitulate, for the purpose of saving the lives of its people, its chiefs and principal inhabitants are required to crawl towards their conquerors upon their hands and knees, suing for pardon and imploring mercy. The daughters of the chiefs are also brought forward and offered to the victors, while from the lower class victims are selected to be sacrificed to the gods. Even such hard conditions do not always suffice, but a whole population is sometimes butchered in cold blood, or reduced to a condition of slavery. To avoid such terrible consequences, most of the weak tribes seek security by establishing themselves on high and almost inaccessible rocks. Some of these are so steep that it would be hardly possible for any but one of the natives to climb them; yet even their women may be seen climbing their rocky and almost perpendicular walls, to heights of fifty or sixty feet, and carrying loads of water, yams, &c.

Tribes that do not possess such fastnesses, are compelled to take refuge under the protection of some powerful chief, in consideration of which they are bound to aid their protectors in case of war. They are summoned to do this by a messenger, who carries a whale's tooth, and sometimes directs the number of men they are to send. A refusal would bring war upon themselves, and is therefore seldom ventured. There is, however, a recent instance in which such aid was refused with impunity by Tui Levuka, who was persuaded by the white residents* to disobey a summons sent from Ambau. Having done this, the people of Levuka felt it necessary to prepare for defence, by repairing their stone walls and provisioning their stronghold in the mountains. They thus stood upon their guard for a long time, but were not attacked.

The religion of the Feejeans, and the practices which are founded upon it, differ materially from those of the lighter-coloured Polynesian people.

The tradition given by the natives of the origin of the various races is singular, and not very flattering to themselves. All are said to have been born of one pair of first parents. The Feejee was first born, but acted wickedly and was black: he therefore received but little clothing. Tonga was next born; he acted less wickedly, was whiter, and had more clothes given him. White men, or Papalangis, came last; they acted well, were white, and had plenty of clothes.

They have a tradition of a great flood or deluge, which they call Walavu-levu. Their account of it is as follows: after the islands had been peopled by the first man and woman, a great rain took place, by which they were finally submerged; but, before the

highest places were covered by the waters, two large double canoes made their appearance; in one of these was Rokora, the god of carpenters, in the other Rokola, his head workman, who picked up some of the people, and kept them on board until the waters had subsided, after which they were again landed on the island. It is reported that in former times canoes were always kept in readiness against another inundation.

The persons thus saved, eight in number, were landed at Mbenga, where the highest of their gods is said to have made his first appearance. By virtue of this tradition, the chiefs of Mbenga take rank before all others, and have always acted a conspicuous part among the Feejees. They style themselves Ngali-duva-ki-langi (subject to heaven alone).

The Pantheon of the Feejee Group contains many deities. The first of these in rank is Ndengei. He is worshipped in the form of a large serpent, alleged to dwell in a district under the authority of Ambau, which is called Nakauvandra, and is situated near the western end of Vitilevu. To this deity, they believe that the spirit goes immediately after death, for purification or to receive sentence. From his tribunal the spirit is supposed to return and remain about the mbure or temple of its former abode.

All spirits, however, are not believed to be permitted to reach the judgment-seat of Ndengei, for upon the road it is supposed that an enormous giant, armed with a large axe, stands constantly on the watch. With this weapon he endeavours to wound all who attempt to pass him. Those who are wounded dare not present themselves to Ndengei, and are obliged to wander about in the mountains. Whether the spirit be wounded or not, depends not upon the conduct in life, but they ascribe an escape from the blow wholly to good luck.

Stories are prevalent of persons who have succeeded in passing the monster without injury. One of these, which was told me by a white pilot, will suffice to show the character of this superstition.

A powerful chief, who had died and been interred with all due ceremony, finding that he had to pass this giant, who, in the legend, is stationed in the Moturiki Channel, loaded his gun, which had been buried with him, and prepared for the encounter. The giant seeing the danger that threatened him, was on the look-out to dodge the ball, which he did when the piece was discharged. Of this the chief took advantage to rush by him before he could recover himself, reached the judgment-seat of Ndengei, and now enjoys celestial happiness!

Besides the entire form of a serpent, Ndengei is sometimes represented as having only the head and half the body of the figure of that reptile, while the remaining portion of his form is a stone, significant of eternal duration.

No one pretends to know the origin of Ndengei, but many assert that he has been seen by mortals. Thus, he is reported to have appeared under the form of a man, dressed in masi (white tapa), after the fashion of the natives, on the beach, near Ragi-ragi. Thence he proceeded to Mbenga, where, although it did not please him, on account of its rocky shores, he made himself manifest, and thence went to Kantavu. Not liking the latter place, he went to Rewa, where he took up his abode. Here he was joined by another powerful god, called

* This is not the only instance in which the white residents have exercised a salutary influence. It is fortunate for the natives that those who have settled among them have been principally of such a character as has tended to their improvement. There are, however, some exceptions, by whose bad example the natives have been led into many excesses.

Warua, to whom after a time he consented to resign this locality, on condition of receiving the choicest parts of all kinds of food, as the heads of the turtle and pig,—which are still held sacred. Under this agreement he determined to proceed to Verata, where he has resided ever since, and by him Verata is believed to have been rendered impregnable.

Next in rank, in their mythology, stand two sons of Ndengei, Tokairambe and Tui Lakemba*. These act as mediators between their father and inferior spirits. They are said to be stationed, in the form of men, at the door of their father's cabin, where they receive and transmit to him the prayers and supplications of departed souls.

The grandchildren of Ndengei are third in rank. They are innumerable, and each has a peculiar duty to perform, of which the most usual is that of presiding over islands and districts.

A fourth class is supposed to be made up of more distant relatives of Ndengei. These preside over separate tribes, by whose priests they are consulted. They have no jurisdiction beyond their own tribe, and possess no power but what is deputed to them by superior deities.

In addition to these benignant beings, they believe in malicious and mischievous gods. These reside in their Hades, which they call Mbulu (underneath the world). There reigns a cruel tyrant, with grim aspect, whom they name Lothia. Samuialo (destroyer of souls) is his colleague, and sits on the brink of a huge fiery cavern, into which he precipitates departed spirits.

These notions, although the most prevalent, are not universal. Thus: the god of Muthuata is called Radinadina. He is considered as the son of Ndengei. Here also Rokora, the god of carpenters, is held in honour; and they worship also Rokavona, the god of fishermen.

The people of Lakemba believe that departed souls proceed to Namukaliwu, a place in the vicinity of the sea. Here they for a time exercise the same employments as when in this life, after which they die again, and go to Mbulu, where they are met by Samuialo. This deity is empowered to seize and hurl into the fiery gulf all those whom he dislikes. On Kantavu they admit of no god appointed to receive departed souls, but suppose that these go down into the sea, where they are examined by the great spirit, who retains those he likes, and sends back the others to their native island, to dwell among their friends. Another belief is, that the departed spirit goes before the god Taseta, who, as it approaches, darts a spear at it. If the spirit exhibits any signs of fear, it incurs the displeasure of the god, but if it advances with courage, it is received with favour.

On Vanua-levu it is believed that the souls of their deceased friends go to Dimba-dimba, a point of land which forms Ambau Bay. Here they are supposed to pass down into the sea, where they are taken into two canoes by Rokavona and Rokora, and ferried across into the dominions of Ndengei. When it blows hard, and there are storms of thunder, lightning, and rain, the natives say that the canoes are getting ready.

Some few of the natives worship an evil spirit, whom they call Ruku batin dua (the one-toothed

* Some say he has but one son, called Mautu (the bread-fruit).

Lord). He is represented under the form of man, having wings instead of arms, and as provided with claws to seize his victims. His tooth is described as being large enough to reach above the top of his head; it is alleged he flies through the air emitting sparks of fire. He is said to roast in fire all the wicked who apertain to him. Those who do not worship him call him Kalou-kana, or Kalou-du.

At Rewa, it is believed that the spirits first repair to the residence of Ndengei, who allots some of them to the devils for food, and sends the rest away to Mukalou, a small island off Rewa, where they remain until an appointed day, after which they are all doomed to annihilation. The judgments thus passed by Ndengei, seem to be ascribed rather to his caprice than to any desert of the departed soul.

This idea of a second death is illustrated by the following anecdote, related by Mr. Vanderford. This officer resided, for several months after his shipwreck, with Tanoa, king of Ambau. During this time there was a great feast, at which many chiefs were present, who remained to sleep. Before the close of the evening amusements, one of them had recounted the circumstances of his killing a neighbouring chief. During the night he had occasion to leave the house, and his superstition led him to believe that he saw the ghost of his victim, at which he threw his club, and, as he asserted, killed it. Returning to the house, he aroused the king and all the other inmates, to whom he related what he had done. The occurrence was considered by all as highly important, and formed the subject of due deliberation. In the morning the club was found, when it was taken, with great pomp and parade, to the mbure, where it was deposited as a memorial. All seemed to consider the killing of the spirit as a total annihilation of the person.

Among other forms of this superstition regarding spirits, is that of transmigration. Those who hold it, think that spirits wander about the villages in various shapes, and can make themselves visible or invisible at pleasure; that there are particular places to which they resort, and in passing these they are accustomed to make a propitiatory offering of food or cloth. This form of superstition is the cause of an aversion to go abroad at night, and particularly when it is dark.

It is also a general belief, that the spirit of a celebrated chief may, after death, enter into some young man of the tribe, and animate him to deeds of valour. Persons thus distinguished are pointed out as highly favoured; in consequence, they receive great respect, and their opinions are treated with much consideration, besides which, they have many personal privileges.

In general, the passage from life to death is considered as one from pain to happiness, and I was informed, that nine out of ten look forward to it with anxiety, in order to escape from the infirmities of old age, or the sufferings of disease.

The deities whom we have named are served by priests, called ambati, who are worshipped in buildings denominated mbure, or spirit-houses. Of such buildings each town has at least one, and often several, which serve also for entertaining strangers, as well as for holding councils and other public meetings. In these mbures, images are found; but these, although much esteemed as orna-

ments, and held sacred, are not worshipped as idols. They are only produced on great occasions, such as festivals, &c.

The ambati, or priests, have great influence over the people, who consult them on all occasions, but are generally found acting in concert with the chiefs, thus forming a union of power which rules the islands. Each chief has his ambati, who attends him wherever he goes. The people are grossly superstitious, and there are few of their occupations in which the ambati is not more or less concerned. He is held sacred within his own district, being considered as the representative of the kalon, or spirit. Mr. Hunt informed me, that the natives seldom separate the idea of the god from that of his priest, who is viewed with almost divine reverence. My own observations, however, led to the conclusion, that it is more especially the case at Somu-somu, where Mr. Hunt resides, and where the natives are more savage, if possible, in their customs, than those of the other islands. If intercourse with white men has produced no other effect, it has lessened their reverence for the priesthood; for wherever they have foreign visitors, there may be seen a marked change in this respect.

The office of ambati is usually hereditary, but in some cases may be considered as self-chosen. Thus, when a priest dies without male heirs, some one, who is ambitious to succeed him, and desirous of leading an idle life, will strive for the succession. To accomplish this end, he will cunningly assume a mysterious air, speaking incoherently, and pretending that coming events have been foretold him by the kalon, whom he claims to have seen and talked with. If he should have made a prediction in relation to a subject in which the people take an anxious interest, and with which the event happens to correspond, the belief that his pretensions are well founded is adopted. Before he is acknowledged as ambati, he, however, is made to undergo a further trial, and is required to show publicly that the kalon is entering into him. The proof of this is considered to lie in certain shiverings, which appear to be involuntary, and in the performance of which none but an expert juggler could succeed.

I had an opportunity, while at Levuka, of seeing a performance of this description. Whippy gave me notice of it, having ascertained that the offering which precedes the consultation was in preparation. This offering consisted of a hog, a basket of yams, and a quantity of bananas. In this case the ambati had received notice that he was to be consulted, and was attached to the person of Seru, (Tanoa's son,) for whose purposes the prophetic intervention was needed.

On such occasions the chiefs dress in the morning in their gala habits, and proceed with much ceremony to the mbure, where the priest is. On some occasions, previous notice is given him; at other times he has no warning of their coming, until he receives the offering.

The amount of this offering depends upon the inclination of the party who makes it. The chiefs and people seat themselves promiscuously in a semicircle, the open side of which is occupied by the person who prepares the ava. This mode of sitting is intended as an act of humiliation on the part of the chiefs, which is considered as acceptable to the gods. When all is prepared, the principal chief, if

the occasion be a great one, presents a whale's tooth. The priest receives this in his hands, and contemplates it steadily, with downcast eyes, remaining perfectly quiet for some time. In a few minutes distortions begin to be visible in his face, indicating, as they suppose, that the god is entering into his body. His limbs next show a violent muscular action, which increases until his whole frame appears convulsed, and trembles as if under the influence of an ague fit; his eyeballs roll, and are distended; the blood seems rushing with violence to and from his head; tears start from his eyes; his breast heaves; his lips grow livid, and his utterance confused. In short, his whole appearance is that of a maniac. Finally, a profuse perspiration streams from every pore, by which he is relieved, and the symptoms gradually abate; after this, he again sinks into an attitude of quiet, gazing about him from side to side, until suddenly striking the ground with a club, he thus announces that the god has departed from him. Whatever the priest utters while thus excited, is received as a direct response of the gods to the prayers of those who made the offering. The provisions of which the offering is composed are now shared out, and ava prepared. These are eaten and drunk in silence. The priest partakes of the feast, and always eats voraciously, supplying, as it were, the exhaustion he has previously undergone. It is seldom, however, that his muscles resume at once a quiescent state, and they more usually continue to twitch and tremble for some time afterwards.

When the candidate for the office of ambati has gone successfully through such a ceremony, and the response he gives as from the god is admitted to be correct, he is considered as qualified to be a priest, and takes possession of the mbure. It is, however, easily to be seen, that it is the chief who in fact makes the appointment. The individual chosen is always on good terms with him, and is but his tool. The purposes of both are accomplished by a good understanding between them. There can be no doubt that those who exercise the office of ambati, and go through the actions just mentioned, are consummate jugglers; but they often become so much affected by their own efforts, that the motions of the muscles become in reality involuntary, and they have every appearance of being affected by a supernatural agency.

By the dexterity with which the ambati perform their jugglery performances, they acquire great influence over the common people; but, as before remarked, they are merely the instruments of the chiefs. When the latter are about going to battle, or engaging in any other important enterprise, they desire the priest to let the spirit enter him forthwith, making him, at the same time, a present. The priest speedily begins to shake and shiver, and ere long communicates the will of the god, which always tallies with the wishes of the chief. It sometimes happens that the priest fails in exciting himself to convulsive action; but this, among a people so wrapt in superstition, can always be ingeniously accounted for: the most usual mode of excusing the failure, is to say that the kalon is dissatisfied with the offering.

The chiefs themselves admitted, and Whippy informed me, that they have little respect for the power of the priests, and use them merely to govern the people. The ambati are generally the

most shrewd and intelligent members of the community, and the reasons for their intimate union with the chiefs are obvious; without the influence of the superstition of which they are the agents, the chief would be unable successfully to rule; while without support from the authority of the chief, the ambati could scarcely practise their mummeries without detection.

The priests, when their services are not wanted by the chiefs, are sometimes driven to straits for food. In such cases they have recourse to the fears of the people, and among other modes of intimidation, threaten to eat them if their demands are not complied with. To give force to the menace, they pretend to have had communication with the god in dreams, and assemble the people to hear the message of the deity. This message is always portentous of evil; the simple natives are thus induced to make propitiatory offerings, which the priest applies to his own use.

The priest at Levuka pretends to receive oracles from a miniature mbure, an engine of superstition, which he keeps behind a screen in the spirit-house. It is about four feet high; the base is about fifteen inches square; it is hollow within, has an ear on one side of it, and a mouth and nose on the other.

This oracle is covered with scarlet and white seeds, about the size of a large pea, which are stuck upon it in fantastic figures with gum. To the priest this is a labour-saving machine; for on ordinary occasions, instead of going through the performance we have described, he merely whispers in the ear of the model, and pretends to receive an answer by applying his own ear to its mouth.

The occasions on which the priests are required to shake, are usually of the following kinds: to implore good crops of yams and taro; on going to battle; for propitious voyages; for rain; for storms, to drive boats and ships ashore, in order that the natives may seize the property they are freighted with; and for the destruction of their enemies.

When the prayers offered are for a deliverance from famine, the priest directs the people to return to their houses, in the name of Ndengei, who then at his instance is expected to turn himself over, in which case an earthquake ensues, which is to be followed by a season of fertility.

When it is determined to offer a sacrifice, the people are assembled and addressed by a chief. A time is then fixed for the ceremony, until which time a taboo is laid upon pigs, turtles, &c. On the appointed day, each man brings his quota of provisions, and a whale's tooth if he have one. The chief, accompanied by the others, approaches the mbure, and while he offers up his prayers, the people present their gifts. The latter then return to their houses, and the offering is distributed by the priest.

When a chief wishes to supplicate a god for the recovery of a sick friend, the return of a canoe, or any other desired object, he takes a root of ava and a whale's tooth to the mbure, and offers them to the priest. The latter takes the whale's tooth in his hands, and then goes through the operation of shaking, &c., as has already been described.

Besides the occasional consultation of the gods through the ambati, there are stated religious festivals. One of these, which is said to be only prac-

tised in districts subject to Tui Levuka, takes place in the month of November, and lasts four days. At its commencement an influential matani-vanua (landholder) proceeds just at sunset to the outside of the koro, or town, where, in a loud voice, he invokes the spirit of the sky, praying for good crops and other blessings. This is followed by a general beating of sticks and drums, and blowing of conchs, which lasts for half an hour. During the four days, the men live in the mbure, when they feast upon the balolo*, a curious species of salt-water worm, which makes its appearance at this season, for one day, while the women and boys remain shut up in the houses. No labour is permitted, no work carried on; and so strictly is this rule observed, that not even a leaf is plucked; and the offal is not removed from the houses. At daylight on the expiration of the fourth night, the whole town is in an uproar, and men and boys scamper about, knocking with clubs and sticks at the doors of the houses, crying out, "Sinariba." This concludes the ceremony, and the usual routine of affairs goes on thenceforth as usual.

At Ambau a grand festival takes place at the ingathering of the fruits. This is called Batami mbulu (the spirit below or in the earth). On this occasion a great feast is held, and the king, chiefs, and people walk in procession, with great pomp and ceremony, to Viwa, where they pay homage to the spirit. I was unable to obtain further details of this festival, but its object was explained to be a return of thanks for the fruits of the earth.

The marriages of the Feejeeans are sanctioned by religious ceremonies, and, among the high chiefs, are attended with much form and parade. As at all other ceremonies, a drinking forms an essential part. The ambati, or priest, takes a seat, having the bridegroom on his right and the bride on the left hand. He then invokes the protection of the god or spirit upon the bride, after which he leads her to the bridegroom, and joins their hands, with injunctions to love, honour, and obey, to be faithful and die with each other.

During this ceremony, the girls are engaged in chewing the ava, on which the priest directs the water to be poured, and cries out, "Ai seu." He then calls upon all the gods of the town or island. He takes care to make no omission, lest the neglected deity should inflict injury on the couple he has united. He concludes the ceremony by calling out "mana" (it is finished); to which the people respond "ndina" (it is true).

For the marriage of a woman, the consent of her father, mother, and brother is required, and must be asked by the intended husband. Even if the father and mother assent, the refusal of the brother will prevent the marriage; but, with his concurrence, it may take place, even if both father and mother oppose. In asking a woman in marriage, rolls of tapa, whales' teeth, provisions, &c., are sometimes presented to the parents. The acceptance of these signifies that the suit is favourably received; their rejection is a refusal of the suit.

If the proposals of the young man are received, he gives notice of it to his own relations, who take

* The balolo is obtained at Wakaia, and is eaten both cooked and raw, as suits the fancy, and from it November receives its name.

presents to his betrothed. Her own relations, by way of dowry, give her a stone-chopper (*matawiwi*) and two tapa-sticks (*eki*), after which the marriage may take place.

Among the common people the marriage rites are less ceremonious than those of the chiefs. The priest of the tribe comes to the house, when he is presented with a whale's tooth and a bowl of *ava*, and making a *sevu-sevu* (prayer), invokes happiness upon the union. The bride's near relations then present her with a large petticoat (*licolib*), and the more distant relatives make gifts of *tapas*, mats, and provisions.

Every man may have as many wives as he can maintain, and the chiefs have many betrothed to them at an early age, for the purpose of extending their political connexions by bonds which, according to their customs, cannot be overlooked.

The daughters of chiefs are usually betrothed early in life. If the bridegroom refuses to carry the contract into effect, it is considered as a great insult, and he may lay his account to have a contest with her relations and friends. If the betrothed husband die before the girl grows up, his next brother succeeds to his rights in this respect. Many of the marriages in high life are the result of mutual attachment, and are preceded by a courtship, presents, &c. The parties may be frequently seen, as among us, walking arm-in-arm after they are engaged. Forced marriages sometimes occur, although they are by no means frequent in this class; in such instances suicide is occasionally the consequence. A case of this sort had occurred previous to our arrival, when a daughter of the chief of *Ovolau* killed herself by jumping off a precipice behind the town, because she had been forced to marry a brother of *Tanoa*. The females of the lower classes have no such delicate scruples. Among them, marriages are mere matters of bargain, and wives are purchased and looked upon as property in most parts of the group. The usual price is a whale's tooth, or a musket; and this once paid, the husband has an entire right to the person of the wife, whom he may even kill and eat if he feel so disposed. Young women, until purchased, belong to the chief of the village, who may dispose of them as he thinks best. Elopements, however, sometimes take place, when a marriage is opposed from difference of rank or other cause, when the parties flee to some neighbouring chief, whom they engage to intercede and bring about a reconciliation.

Wives are faithful to their husbands rather from fear than from affection. If detected in infidelity, the woman is not unfrequently knocked on the head, or made a slave for life. The man may also be treated in the same manner; but this punishment may also consist in what is called *suabi*. This is a forfeiture of his lands, which is signified by sticking reeds into the ground. These are bound together by knots, so as to form tripods. If the offender wishes to regain his lands, he must purchase the good-will of the offended party by presents. In some cases, the friends of the injured party seize the wife of the offender, and give her to the aggrieved husband. There are also other modes in which a husband revenges himself for the infidelity of his wife, which do not admit of description.

We have seen that the extent to which polygamy

is carried is limited only by the will of the man and his means of maintaining his wives. The latter are almost completely slaves, and usually, by the strict discipline of the husband, live peaceably together. The household is under the charge of the principal wife, and the others are required to yield to her control. If they misbehave, they are tied up, put in irons, or flogged.

The birth of the first child is celebrated by a feast on the natal day; another feast takes place four days afterwards, and another in ten days, when suitable presents are made to the young couple.

Parturition is not usually severe, and some women have been known to go to work within an hour after delivery. Others, however, remain under the nurse's care for months. It is the prevailing opinion that hard work makes the delivery more easy. After childbirth the women usually remain quiet, and live upon a diet composed of young taro-tops, for from four to eight days, after which they bathe constantly.

Midwifery is a distinct profession, exercised by women in all the towns, and they are said to be very skilful, performing operations which are among us considered as surgical. Abortion is prevalent, and nearly half of those conceived are supposed to be destroyed in this manner, usually by the command of the father, at whose instance the wife takes herbs which are known to produce this effect. If this do not succeed, the accoucheur is employed to strangle the child, and bring it forth dead.

A child is rubbed with turmeric as soon as it is born, which they consider strengthening. It is named immediately, by some relative or friend. If, through neglect or accident, a name should not be forthwith given, the child would be considered as an outcast, and be destroyed by the mother.

Girls reach the age of puberty when about fourteen years old, and boys when from seventeen to eighteen. This period in a girl's life is duly celebrated by her; for which purpose she requests the loan of a house from a friend, and takes possession of it, in company with a number of young girls. The townspeople supply them with provisions for ten days, during which they anoint themselves with turmeric and oil. At the expiration of this time, they all go out to fish, and are furnished by the men with provisions.

The only general fact to be derived from the various opinions in relation to the spirits of the dead, which have been stated in the way we received them, is, that a belief in a future state is universally entertained by the Feejeeans. In some parts of the group, this has taken the following form, which, if not derived from intercourse with the whites, is at least more consistent with revealed truth than any of those previously recorded. Those who hold this opinion, say that all the souls of the departed will remain in their appointed place, until the world is destroyed by fire and a new one created; that in the latter all things will be renovated, and to it they will again be sent to dwell thereon.

This belief in a future state, guided by no just notions of religious or moral obligation, is the source of many abhorrent practices. Among these are the custom of putting their parents to death when they are advanced in years; suicide; the

immolation of wives at the funeral of their husbands, and human sacrifices.

It is among the most usual occurrences, that a father or a mother will notify their children that it is time for them to die, or that a son shall give notice to his parents that they are becoming a burden to him. In either case, the relatives and friends are collected, and informed of the fact. A consultation is then held, which generally results in the conclusion, that the request is to be complied with, in which case they fix upon a day for the purpose, unless it should be done by the party whose fate is under deliberation. The day is usually chosen at a time when yams or taro are ripe, in order to furnish materials for a great feast, called *mburua*. The aged person is then asked, whether he will prefer to be strangled before his burial, or buried alive. When the appointed day arrives, the relatives and friends bring tapas, mats, and oil, as presents. They are received as at other funeral feasts, and all mourn together until the time for the ceremony arrives. The aged person then proceeds to point out the place where the grave is to be dug; and while some are digging it, the others put on a new maro and turbaus. When the grave is dug, which is about four feet deep, the person is assisted into it, while the relatives and friends begin their lamentations, and proceed to weep and cut themselves as they do at other funerals. All then proceed to take a parting kiss, after which the living body is covered up, first with mats and tapa wrapped around the head, and then with sticks and earth, which are trodden down. When this has been done, all retire, and are tabooed, as will be stated in describing their ordinary funerals. The succeeding night the son goes privately to the grave, and lays upon it a piece of *ava-root*, which is called the *vei-tala* or *farewell*.

Mr. Hunt, one of the missionaries, had been a witness of several of these acts. On one occasion, he was called upon by a young man, who desired that he would pray to his spirit for his mother, who was dead. Mr. Hunt was at first in hopes that this would afford him an opportunity of forwarding their great cause. On inquiry, the young man told him that his brothers and himself were just going to bury her. Mr. Hunt accompanied the young man, telling him he would follow in the procession, and do as he desired him, supposing, of course, the corpse would be brought along; but he now met the procession, when the young man said that this was the funeral, and pointed out his mother, who was walking along with them, as gay and lively as any of those present, and apparently as much pleased. Mr. Hunt expressed his surprise to the young man, and asked how he could deceive him so much by saying his mother was dead, when she was alive and well. He said, in reply, that they had made her death-feast, and were now going to bury her; that she was old; that his brother and himself had thought she had lived long enough, and it was time to bury her, to which she had willingly assented, and they were about it now. He had come to Mr. Hunt to ask his prayers, as they did those of the priest. He added, that it was from love for his mother that he had done so; that, in consequence of the same love, they were now going to bury her, and that none but themselves could or ought to do so sacred an office! Mr. Hunt did all in his power to prevent so dia-

bolical an act; but the only reply he received was that she was their mother, and they were her children, and they ought to put her to death. On reaching the grave, the mother sat down, when they all, including children, grandchildren, relations, and friends, took an affectionate leave of her; a rope, made of twisted tapa, was then passed twice around her neck by her sons, who took hold of it, and strangled her; after which she was put into her grave, with the usual ceremonies. They returned to feast and mourn, after which she was entirely forgotten as though she had not existed.

Mr. Hunt, after giving me this anecdote, surprised me by expressing his opinion that the Feejeans were a kind and affectionate people to their parents, adding, that he was assured by many of them that they considered this custom as so great a proof of affection that none but children could be found to perform it. The same opinion was expressed by all the other white residents.

A short time before our arrival, an old man at Levuka did something to vex one of his grandchildren, who in consequence threw stones at him. The only action the old man took in the case was to walk away, saying that he had now lived long enough, when his grandchildren could stone him with impunity. He then requested his children and friends to bury him, to which they consented. A feast was made, he was dressed in his best tapa, and his face blackened. He was then placed sitting in his grave, with his head about two feet below the surface. Tapa and mats were thrown upon him, and the earth pressed down; during which he was heard to complain that they hurt him, and to beg that they would not press so hard.

Self-immolation is by no means rare, and they believe that as they leave this life, so will they remain ever after. This forms a powerful motive to escape from decrepitude, or from a crippled condition, by a voluntary death.

Wives are often strangled, or buried alive, at the funeral of their husbands, and generally at their own instance. Cases of this sort have frequently been witnessed by the white residents. On one occasion Whippy drove away the murderers, rescued the woman, and carried her to his own house, where she was resuscitated. So far, however, from feeling grateful for her preservation, she loaded him with abuse, and ever afterwards manifested the most deadly hatred towards him. That women should desire to accompany their husbands in death is by no means strange, when it is considered that it is one of the articles of their belief, that in this way alone can they reach the realms of bliss, and she who meets her death with the greatest devotedness, will become the favourite wife in the abode of spirits.

The sacrifice is not, however, always voluntary; but when a woman refuses to be strangled, her relations often compel her to submit. This they do from interested motives; for, by her death, her connexions become entitled to the property of her husband. Even a delay is made a matter of reproach. Thus, at the funeral of the late king, Ulivou, which was witnessed by Mr. Cargill, his five wives and a daughter were strangled. The principal wife delayed the ceremony, by taking leave of those around her; whereupon Tanoa, the present king, chid her. The victim was his own

aunt, and he assisted in putting the rope around her neck, and strangling her, a service he is said to have rendered on a former occasion to his own mother.

Not only do many of the natives desire their friends to put them to death to escape decrepitude, or immolate themselves with a similar view, but families have such a repugnance to having deformed or maimed persons among them, that those who have met with such misfortunes are almost always destroyed. An instance of this sort was related to me, when a boy whose leg had been bitten off by a shark was strangled, although he had been taken care of by one of the white residents, and there was every prospect of his recovery. No other reason was assigned by the perpetrators of the deed, than that if he had lived he would have been a disgrace to his family, in consequence of his having only one leg.

When a native, whether man, woman, or child, is sick of a lingering disease, their relatives will either wring their heads off, or strangle them. Mr. Hunt stated that this was a frequent custom, and cited a case where he had with difficulty saved a servant of his own from such a fate, who afterwards recovered his health.

Formal human sacrifices are frequent. The victims are usually taken from a distant tribe, and when not supplied by war or violence, they are at times obtained by negotiation. After being selected for this purpose, they are often kept for a time to be fattened. When about to be sacrificed, they are compelled to sit upon the ground, with their feet drawn under their thighs, and their arms placed close before them. In this posture they are bound so tightly that they cannot stir, or move a joint. They are then placed in the usual oven, upon hot stones, and covered with leaves and earth, where they are roasted alive. When the body is cooked, it is taken from the oven and the face painted black, as is done by the natives on festal occasions. It is then carried to the mbure, where it is offered to the gods, and is afterwards removed to be cut up and distributed, to be eaten by the people.

Women are not allowed to enter the mbure, or to eat human flesh.

Human sacrifices are a preliminary to almost all their undertakings. When a new mbure is built, a party goes out and seizes the first person they meet, whom they sacrifice to the gods; when a large canoe is launched, the first person, man or woman, whom they encounter, is laid hold of and carried home for a feast.

When Tanoa launches a canoe, ten or more men are slaughtered on the deck, in order that it may be washed with human blood.

Human sacrifices are also among the rites performed at the funerals of chiefs, when slaves are in some instances put to death. Their bodies are first placed in the grave, and upon them those of the chief and his wives are laid.

The ceremonies attendant on the death and burial of a great chief, were described to me by persons who had witnessed them. When his last moments are approaching, his friends place in his hands two whale's teeth, which it is supposed he will need to throw at a tree that stands on the road to the regions of the dead. As soon as the last struggle is over, the friends and attendants fill

the air with their lamentations. Two priests then take in each of their hands a reed about eighteen inches long, on which the leaves at the end are left, and with these they indicate two persons for grave-diggers, and mark out the place for the grave. The spot usually selected is as near as possible to the banks of a stream. The grave-diggers are provided with mangrove-staves (*tiri*) for their work, and take their positions, one at the head, the other at the foot of the grave, having each one of the priests on his right hand. At a given signal, the labourers, making three feints before they strike, stick their staves into the ground, while the priests twice exchange reeds, repeating Feejee, Tonga; Feejee, Tonga. The diggers work in a sitting posture, and thus dig a pit sufficiently large to contain the body. The first earth which is removed is considered as sacred, and laid aside.

The persons who have dug the grave also wash and prepare the body for interment, and they are the only persons who can touch the corpse without being laid under a taboo for ten months. The body after being washed is laid on a couch of cloth and mats, and carefully wiped. It is then dressed and decorated as the deceased was in life, when preparing for a great assembly of chiefs: it is first anointed with oil, and then the neck, breast, and arms, down to the elbows, are daubed with a black pigment; a white bandage of native cloth is bound around the head, and tied over the temple in a graceful knot; a club is placed in the hand, and laid across the breast, to indicate in the next world that the deceased was a chief and warrior. The body is then laid on a bier, and the chiefs of the subject tribes assemble; each tribe presents a whale's tooth, and the chief or spokesman says: "This is our offering to the dead; we are poor and cannot find riches." All now clap their hands, and the king or a chief of rank replies: "Ai mumundi ni mate" (the end of death); to which all the people present respond, "e dina" (it is true). The female friends then approach and kiss the corpse, and if any of his wives wish to die and be buried with him, she runs to her brother or nearest relative and exclaims, "I wish to die, that I may accompany my husband to the land where his spirit has gone! love me, and make haste to strangle me, that I may overtake him!" Her friends applaud her purpose, and being dressed, and decorated in her best clothes, she seats herself on a mat, reclining her head on the lap of a woman; another holds her nostrils, that she may not breathe through them; a cord, made by twisting fine tapa (*masi*), is then put around her neck, and drawn tight by four or five strong men, so that the struggle is soon over. The cord is left tight, and tied in a bow-knot, until the friends of the husband present a whale's tooth, saying, "This is the untying of the cord of strangling." The cord is then loosed, but is not removed from the neck of the corpse.

When the grave is finished, the principal workman takes the four reeds used by the priests, and passes them backwards and forwards across each other; he then lines the pit or grave with fine mats, and lays two of the leaves at the head and two at the foot of the grave; on these the corpse of the chief is placed, with two of his wives, one on each side, having their right and left hands, respectively, laid on his breast; the bodies are then

wrapped together in folds of native cloth; the grave is then filled in, and the sacred earth is laid on, and a stone over it. All the men who have had any thing to do with the dead body take off their maro or masi, and rub themselves all over with the leaves of a plant they call *koaikoaia*. A friend of the parties takes new *tapa*, and clothes them, for they are not allowed to touch any thing, being tabooed persons. At the end of ten days, the head chief of the tribe provides a great feast (*mburua*), at which time the tabooed men again scrub themselves, and are newly dressed. After the feast, *ava* is prepared and set before the priest, who goes through many incantations, shiverings, and shakings, and prays for long life and abundance of children. The soul of the deceased is now enabled to quit the body and go to its destination. During these ten days, all the women in the town provide themselves with long whips, knotted with shells; these they use upon the men, inflicting bloody wounds, which the men retort by flirting from a piece of split bamboo little hard balls of clay.

When the tabooed person becomes tired of remaining so restricted, they send to the head chief, and inform him, and he replies that he will remove the taboo whenever they please; they then send him presents of pigs and other provisions, which he shares among the people. The tabooed persons then go into a stream and wash themselves, which act they call *vuluvulu*; they then catch some animal, a pig or turtle, on which they wipe their hands: it then becomes sacred to the chief. The taboo is now removed, and the men are free to work, feed themselves, and live with their wives. The taboo usually lasts from two to ten months in the case of chiefs, according to their rank; in the case of a petty chief, the taboo would not exceed a month, and for a common person, not more than four days. It is generally resorted to by the lazy and idle; for during this time they are not only provided with food, but are actually fed by attendants, or eat their food from the ground. On the death of a chief, a taboo is laid upon the cocoanuts, pigs, &c., of a whole district.

Taking off a taboo is attended with certain ceremonies. It can be done by none but a chief of high rank. Presents are brought to the priest, and a piece of *ava*, which is brewed and drunk; he then makes a prayer (*sevu-sevu*), and the ceremony is finished.

In laying a taboo, a stone about two feet in length is set up before the *mbure*, and painted red; *ava* is chewed; after which the priest makes a prayer, and invokes maledictions on the heads of those who shall break it. Trees that are tabooed have bands of cocoa-nut or pandanus-leaves tied around them, and a stick is set in a heap of earth near by. We had an instance of this at the time of our arrival, when we found all the cocoanuts tabooed. We in consequence could obtain none, until I spoke to the chiefs of *Amban*, who removed the taboo.

To the funeral ceremonies we have described, others are added, in some parts of the group, and there are differences in some of the details of the rites. Thus, at *Muthuata*, the body of a chief is usually taken to the royal *mbure*, on the island of that name, to be interred. The corpse, instead of being dressed in the habiliments of life, is wrapped

in white mats, and borne on a wide plank. On its arrival at the *mbure*, it is received by the priest, who pronounces an eulogium on his character, after which the young men form themselves into two ranks, between which, and around the corpse, the rest of the people pass several times.

All the boys who have arrived at a suitable age are now circumcised, and many boys suffer the loss of their little fingers. The foreskins and fingers are placed in the grave of the chief. When this part of the ceremony is over, young bread-fruit trees are presented by the relatives of the chief to the boys, whose connexions are bound to cultivate them until the boys are able to do it themselves*.

The strangulation of the chief's wives follows; and this is succeeded by a farther eulogium of the deceased, and a lament for the loss his people have sustained. The whole is concluded by a great feast of hogs, taro, yams, and bananas.

The funerals of persons of lower rank are of course far less ceremonious. The body is wrapped in *tapa* or mats, and sometimes sprinkled with turmeric, and is buried in a sitting posture, just below the surface of the ground. Even in this class the wife generally insists on being strangled. Instances are now, however, beginning to occur, in which this custom is not persisted in, a circumstance which seems to show that the dawn of civilization is breaking upon them.

On the day of the death, a feast called *mburua* is always provided; another four days after, called *boniva*; and a third at the end of ten days, which is called *boniviti*.

The usual outward sign of mourning is to crop the hair or beard, or very rarely both. Indeed, they are too vain of these appendages to part with them on trifling occasions; and as the hair, if cut off, takes a long time to grow again, they use a wig as a substitute. Some of these wigs are beautifully made, and even more exact imitations of nature than those of our best perruquiers.

Another mark of sorrow is to cut off the joints of the small toe and little finger; and this is not done only as a mark of grief or a token of affection, but the dismembered joints are frequently sent to families which are considered wealthy, and who are able to reward this token of sympathy in their loss, which they never fail to do.

Women in mourning burn their skin into blisters, as is the practice also in other groups visited by us. The instrument used for the purpose is a piece of *tapa* twisted into a small roll and ignited. Marks thus produced may be seen on their arms, shoulders, neck, and breast. This custom is called *loloe mate*.

The eating of human flesh is not confined to cases of sacrifice for religious purposes, but is practised from habit and taste. The existence of cannibalism, independent of superstitious notions, has been doubted by many. There can be no question that, although it may have originated as a sacred rite, it is continued in the Feejee Group for the mere pleasure of eating human flesh as a food. Their fondness for it will be understood from the custom they have of sending portions of

* This custom has an important influence in keeping up a stock of this important source of food, and may have originated with that view.

it to their friends at a distance, as an acceptable present, and the gift is eaten, even if decomposition have begun before it is received. So highly do they esteem this food, that the greatest praise they can bestow on a delicacy is to say that it is as tender as a dead man.

Even their sacrifices are made more frequent, not merely to gratify feelings of revenge, but to indulge their taste for this horrid food. In respect to this propensity, they affect no disguise; I have myself frequently spoken with them concerning it, and received but one answer, both from chiefs and common people, that it was *vinaka* (good).

The bodies of enemies slain in battle are always eaten. Whippy told me that he saw, on one occasion, upwards of twenty men cooked; and several of the white residents stated that they have seen bodies brought from such a distance as to be green from putrescence, and to have the flesh dropping from the bones, which were, notwithstanding, eaten with greediness and apparent pleasure.

War, however, does not furnish enough of this food to satisfy their appetite for it. Stratagem and violence are resorted to for obtaining it. While we were at Levuka, as a number of women belonging to the village were engaged in picking up shells and fishing, a canoe belonging to the Lasikaus, or fishermen, in passing by the reef, seized and carried off two of them, as it was believed, for cannibal purposes. When I heard the story I could not at first believe it; but it was confirmed by Tui Levuka, who said that the Lasikaus frequently stole women from the reefs for the purpose of eating them.

All doubt, however, was removed, when Mr. Eld, while stationed at the observatory, became an eye-witness of an attempt of the kind. The daughter of the Vi Tonga* chief, with some of her companions, was engaged in fishing on the reef in a small canoe. By some accident the canoe was swamped, which rendered them a prize to whoever should capture them. A canoe from Ambau had watched the poor creatures like a hawk, and, as soon as the accident happened, pounced upon them. The men in the canoe succeeded in capturing the chief's daughter, and forced her into the vessel. When near the shore, however, she contrived to make her escape by jumping overboard, and reached the shore before they could overtake her. Clubs and spears were thrown at her, with no other effect than a slight scratch under the arm, and a bruise on her shoulder. On the beach she was received by her friends, who stood ready to protect her, upon which the Ambau people gave up the pursuit.

The cannibal propensity is not limited to enemies or persons of a different tribe, but they will banquet on the flesh of their dearest friends; and it is even related, that in times of scarcity, families will make an exchange of children for this horrid purpose.

The flesh of women is preferred to that of men, and they consider the flesh of the arm above the elbow, and of the thigh, as the choicest parts. The women are not allowed to eat it openly, but it is said that the wives of chiefs do partake of it in

private. It is also forbidden to the *kai-si*, or common people, unless there be a great quantity, but they have an opportunity of picking the bones.

As a further instance of these cannibal propensities, and to show that the sacrifice of human life to gratify their passions and appetites is of almost daily occurrence, a feast frequently takes place among the chiefs, to which each is required to bring a pig. On these occasions Tanoa, from pride and ostentation, always furnishes a human body.

A whale's tooth is about the price of a human life, even when the party slain is of rank, as will be shown by the following anecdotes. Rivaletta, the youngest son of Tanoa, while passing along the north end of Ovalau in his canoe, descried a fishing party. He at once determined to possess himself of what they had taken, and for this purpose dashed in among them, and fired his musket. The shot killed a young man, who proved to be a nephew of Tui Levuka, the chief of Ovalau, and was recognised by some of Rivaletta's followers. This discovery did not prevent their carrying the body to Ambau to be feasted upon; but in order to prevent it from being known there, the face was disfigured by broiling it in the fire in the canoe. Tanoa, however, soon became aware of the fact, and forthwith sent a whale's tooth to Tui Levuka, as the value of his loss, together with a number of little fingers, cut from the people of Ambau, as a propitiatory offering. The remuneration was received by Tui Levuka as sufficient, and no more notice was taken of the matter.

Before we left the group, an inferior chief ran away with one of the wives of Tui Levuka. The latter immediately despatched his son to the town where the chief resided, for the purpose of killing the offender, which was effected, and the woman brought back. Tui Levuka thereupon sent a whale's tooth and some *tapa* to the principal chief of the town, and the affair was ended.

When they set so little value on the lives of their own countrymen, it is not to be expected that they should much regard those of foreigners. It is necessary, therefore, while holding intercourse with them, to be continually guarded against their murderous designs, which they are always meditating for the sake of the property about the person, or to obtain the body for food. Several recent instances are related, where crews of vessels visiting these islands have been put to death. One of these, in particular, became known to me, and led to certain proceedings on my part, which will form an important part of the following chapter.

The vessel in question was the American brig, Charles Doggett, Captain Bachelor. I had heard of the attack upon her, and after Paddy Connel paid me his first visit, of which I have before spoken, I learned that he had been on board the brig at the time, and had a full knowledge of all who were concerned in the transaction. I therefore, on his next visit, questioned him in relation to the affair, and obtained the following particulars.

In the month of August, 1834, Paddy, with some other men, was engaged by Captain Bachelor to assist in getting a cargo of *biche de mer*. The brig then went to Rewa, where the captain made a contract with Vendovi, a chief of that island, and Vasu of Kantavu, for further assistance in attaining his object. Here the conduct of Vendovi, Thokananto

* Vi Tonga is a town immediately below the point on which the observatory was placed.

and other chiefs, led to the suspicion that some mischief was intended; Paddy heard rumours of the great value of the articles on board the brig, accompanied by hints that the crew was but small, and predictions that it would not be well with her. He also found that a desire was evinced that he should not go further in the vessel. In consequence, Paddy, while on the way to Kantavu, mentioned his suspicions to Captain Bachelor, and advised him to be on his guard. When they arrived at Kantavu, they proceeded to a small island near its eastern end, where the biche de mar house was erected, and a chief of the island was, as usual, taken on board as a hostage. The day after he came on board, he feigned sickness, and was, in consequence, permitted to go on shore. He departed with such unusual exhibitions of friendly disposition, as served to confirm Paddy's previous suspicions; but he felt assured that all would be safe so long as the captain remained on board.

On the following morning (Sunday), Vendovi came off, saying that the young chief was very sick, and he wanted the captain to come to the biche de mar house, where he said he was, to give him some medicine. In this house eight of the men were employed, of whom two were Sandwich Islanders. The captain was preparing to go ashore with the medicine, when Paddy stepped aft to him, and told him that to go on shore was as much as his life was worth, for he was sure that the natives intended to kill him, and to take all their lives. The captain in consequence remained on board, but the mate went on shore, and took with him the bottle of medicine. Vendovi went in the boat, and landed with the mate, but could not conceal his disappointment that the captain did not come also. Paddy now was convinced, from the arrangements that had been made to get the people and boats away from the brig, that the intended mischief was about to be

consummated. He therefore kept a sharp look-out upon the shore, and soon saw the beginning of an affray, the mate, Mr. Chitman, killed, and the building in flames. The others were also slain, with the exception of James Housman, who had been engaged at the same time with Paddy, and who swam off, and was taken on board. Those in the brig opened a fire from the great guns, but without effect.

On the following day Paddy was employed to bargain with the natives for the bodies, seven of which were brought down to the shore much mutilated, in consideration of a musket. The eighth, a negro, had been cooked and eaten. Captain Bachelor had the bodies sewed up in canvass, and thrown overboard, in the usual manner. They however floated again, and fell into the hands of the savages, who, as he afterwards understood, devoured them all. They complained, however, that they did not like them, and particularly the negro, whose flesh they said tasted strong of tobacco. The brig then went to Ovola, where Paddy left her.

In addition, Paddy told me that he was satisfied that all the chiefs of Rewa had been privy to the plot, particularly the brothers of Vendovi, and that the whole plan had been arranged before the brig left that island. Vendovi, however, was the person who had actually perpetrated the outrage.

Having heard this statement, I determined to capture Vendovi, and asked Paddy if he would carry a letter immediately to Captain Hudson, who was then with the Peacock at Rewa. After some hesitation he agreed to do it, if I would give him a musket. I accordingly prepared instructions directing Captain Hudson to make Vendovi prisoner, and despatched Paddy next morning in a canoe for Rewa.

CHAPTER XXIV.

THE FEEJEE GROUP.—REWA.

DEPARTURE OF THE PEACOCK FROM LEVUKA—HER ARRIVAL AT THE ANCHORAGE OFF NUKALOU—PROGRESS OF HER BOATS IN SURVEYING—AMBAU—VERATA AND VIWA—MISSION OF LIEUTENANT BUDD—THOKANAUTO, OR MR. PHILLIPS—VISIT OF THE KING AND HIS BROTHERS—THE KING SIGNS THE RULES AND REGULATIONS—VISIT OF CAPTAIN HUDSON TO REWA—ARRIVAL OF PADDY CONNEL—THE KING'S HOUSE—HIS MODE OF EATING—HIS ENTERTAINMENT OF THE SHIP'S OFFICERS—MESSENGER FROM KANTAVU—CEREMONY OF AVA DRINKING—KING'S CUPBEARER—HIS CONVERSATION—EXHIBITION OF FIREWORKS—NOCTURNAL ADVENTURE—ROYAL BREAKFAST—COUNTRY AROUND REWA—MBURES—NGARANINGIOU'S HOUSE—THOKANAUTO'S HOUSE—LIKENESSES TAKEN BY MR. AGATE—TRIBUTE FROM THE PEOPLE OF KANTAVU—LIEUTENANT BUDD EXPLORES THE RIVER—VATIA—NOU SOURI—NATACALLO—CAPAVOO—FATE OF CHARLEY SAVAGE—CORONGANGA—NACUNDI—NAITASIRI—TAVU—TAVU—BETHUNE'S POINT—MOUNTAIN DISTRICT—SAVOU—CAPTAIN HUDSON RESOLVES TO TAKE VENDОВИ—VISIT OF THE KING AND QUEEN—VISIT OF NGARANINGIOU—THE KING, QUEEN, AND CHIEFS MADE PRISONERS—NGARANINGIOU UNDERTAKES TO BRING VENDОВИ—CASE OF THE CURRENCY LASS—DISPOSITION OF THE PRISONERS—THEATRICALS FOR THEIR ENTERTAINMENT—PHILLIPS RELATES THE HISTORY OF REWA—CHARACTER OF PHILLIPS—RETURN OF NGARANINGIOU WITH VENDОВИ—LEAVE-TAKING BETWEEN VENDОВИ AND HIS BROTHERS—VISIT FROM MR. CARGILL—SAILING OF THE PEACOCK—HER FAILURE TO REACH KANTAVU.

When the Peacock left the harbour of Levuka for Rewa, it was for the purpose of visiting that town and inducing the king of Rewa to sign the Feejee regulations, and also to carry on the surveys in that quarter. The Peacock left Levuka on the 15th May, and reached Rewa at noon the next day.

The harbour of Rewa is formed by two small islands, called Nukalou and Mukalou, with their attached coral reefs, and has three passages into it. The two southern ones are safe, though narrow, but the northern one is much obstructed with coral lumps. The port is a secure one, and the anchor-

age, which is off the island of Nukalou, is about three miles from the mouth of Wailevu, or Peale's river, and six from the town of Rewa, which is situated on a low piece of land, which the river, passing on each side of it, has formed into an island. The east point of Vitilevu is low, and is divided by several small and unimportant streams, which we had not time to examine; there is, also, at high water, a passage for canoes through one of them to Ambau, which lies ten miles to the northward.

The launch and first cutter of the Peacock, under Lieutenant Emmons and Passed-Midshipman Blunt, were found here, having advanced thus far in their surveying operations. They had passed around the bay of Ambau, stopped at the town, and met with rather an unfriendly reception there; the chiefs refused to give them any water unless paid for, on account, as they said, of our trader-master not paying a higher price for the yams they carried him. For this reason the chiefs were in a bad humour, and had refused a supply of water to the boats.

Ambau is a singular-looking place. It occupies a small island, which is entirely covered with houses, among which the mbure stands conspicuous. The approach to the town is much obstructed by reefs of coral; and the water being shallow, is impassable for an armed vessel. The island is connected with the main land or large island, by a long flat of coral, which is fordable, even at high water, and is in places quite bare at low water. One is at a loss to conceive how this place could have acquired its strength and importance. I am rather inclined to impute it to the enterprise of its first settlers, and the ascendancy given it by the accidental aid that has been afforded its chiefs by the whites, who came among them and joined their side. It was, probably, at first, the retreat of the fishermen; and from their enterprise, the difficulties they had to encounter, and the powerful connexions they have formed with the other towns and districts, it is likely that their rule will continue until the people shall have become civilized, when, from the want of internal resources, the terror of its name will pass away, and it must fall to the rank of a place of secondary importance.

At present it is in the ascendancy, and its chiefs have a high estimate of their own importance. Thus, while I was at Levuka, I was much amused by a question put me by Seru, "Why I had not gone with my ship to Ambau? why come to Levuka, where there were no gentlemen, none but common people (kai-si)? all the gentlemen lived at Ambau."

The towns of Verata and Viwa are within a short distance of Ambau, and have both been its rivals. At each of these some fearful outrage has been perpetrated upon trading vessels, for which the guilty have been but partially punished. The chief of Viwa, I understood, had made it his boast that the French had only burned a few of his mud huts, which he could shortly build again; that it would give a very few days of labour to his slaves; and that he would cut off the next vessel that came, if he had an opportunity. He thinks that it was a very cheap purchase to get so much property for so little damage. The Ambau people also spoke vauntingly of having given the

French permission to destroy Viwa, as it was nothing, and satisfied the Papalangis; but they did not intend that any property or lives should be lost, for they had sent to inform the Viwa people that the attack was to be made, and even helped them to remove all their valuables. Viwa is not so large a town as Ambau, but is built on a larger island, and affords more conveniences for a port.

The whole bay of Ambau is well shielded by extensive coral sea-reefs. Here the launch and first cutter again left the Peacock, on their way to the island of Mbenga, to the westward.

Captain Hudson, after anchoring, sent Lieutenant Budd to the town of Rewa for the purpose of communicating with the king and chiefs, and of obtaining the services of Thokanauto (Mr. Phillips) as interpreter and pilot. Lieutenant Budd observed much apparent fear among the chiefs and people. The king, Kania, on the approach of the boats, had gone to hide himself in the outskirts of the town, but Mr. Phillips was met on the way coming towards them, and after much hesitation determined to accompany Mr. Budd on board the ship. The natives appeared to entertain the same fears as their chief.

Phillips is about thirty years of age, of middle size, active, and well-made; he is more intelligent than the natives generally, and his appearance less savage; he speaks English tolerably well, though it is not difficult to perceive whence he has obtained his knowledge of it, by the phrases he makes use of. It was not a little comical to hear a Feejee man talk of "New York highbinders," "Boston dandies," "Baltimore mobtowns." On assurances being given to the natives that we were their friends, they became more reconciled, and after a time the king, Kania, or Tui Ndraketi, was found, and invitations delivered to him to pay a visit to the ship. Lieutenant Budd then crossed the river to the missionaries' houses, where he saw their wives, and found Mr. Jagger, who is one of the mission. The Rev. Mr. Cargill had visited the ship shortly after the Peacock anchored; his canoe was manned by Touga men. He was on his way to a town fifteen miles distant, where the chief and a few of the people had just embraced Christianity. He was invited to preach on board the next day; he complied, and delivered an excellent discourse.

On the morning of the 18th, Monday, the king and his brother, Ngaraniongu, visited the ship. The king came in a canoe of beautiful construction, about forty feet in length, propelled by paddles, which the king alone is allowed to use. Ngaraniongu was in a much larger canoe, having a large mast and sail, and the chief's pennant flying from the yard, but sculls were used.

Captain Hudson now despatched Lieutenant Budd and Passed-Midshipman Davis, with two boats, up the river. Mr. Peale, one of the naturalists, went with this expedition, and Mr. Phillips's services were engaged to accompany and protect the boats in the exploration of the river.

The ship had been prepared for the king's visit; he was received with due ceremony, and was led aft, and seated on the quarter-deck. Tui Ndraketi is about forty years of age, and is a tall, fine-looking man, with a manly expression

of countenance, and much dignity. His intellect is not as quick as that of his brother, Mr. Phillips; and his manner was cold and repulsive. He was without any attendants of high rank. Ngaranin-giou shortly afterwards made his appearance, accompanied by six chiefs, and a retinue of thirty or forty men, forming a singular contrast to the unassuming appearance of the suite of the king. Another of the party was a chief of high rank, called Vunivalu, "Root of war:" he is a descendant of the royal family that were dethroned by Kania. His position gives him great influence, and, in case of war, the operations are confided to him. This chief bears, among the foreigners, the title of governor.

Ngaranin-giou is equally tall with his eldest brother, the king, and better and more gracefully formed. He may be considered a good specimen of a Feejee man of high rank and fashion; indeed, his deportment struck the officers as quite distinguished: he has, withal, the appearance of a *roué*, and his conduct does not belie the indications, and he is considered by all, both natives and white residents, as a dangerous man. The young chiefs who were his companions, resembled him in character and manners. They were all shown over the ship, and every thing exhibited that it was thought could interest them; the small-arm men were exercised, the only music on board, the drum and fife, were played. These, together with the firing off the guns, shotted, did not fail to draw forth their usual expressions of wonder and surprise, "who-o-o!" the same that was uttered by Tanoa's party, on board the Vincennes. After partaking of some refreshments with Captain Hudson, the rules and regulations, similar to those subscribed by Tanoa, were carefully interpreted to them by Mr. Cargill, and willingly subscribed by the king and chiefs, with the strongest assurances, on their part, that they should be carried into effect, and most strictly observed. Suitable presents were then distributed to the king and chiefs, and they left the ship, apparently highly delighted with their visit.

The surveying operations were now prosecuted, and the naturalists, with as many officers as could be spared, visited Rewa. Captain Hudson describes the passage up to Rewa as tortuous and difficult, even for a boat, on account of the many sand-banks and shoals. Several of the gentlemen embarked with Mr. Cargill in his canoe, which had a high platform, underneath which was a sort of cuddy, with seats. It was a tolerably comfortable conveyance in fine weather; but it was their misfortune to experience a heavy rain, and all were well wetted. The wind being contrary, they were obliged to scull the whole distance, and they describe the canoe as having an uncomfortable rocking motion.

Captain Hudson visited the missionaries, and found them most miserably accommodated, in a small rickety house on the left bank of the river, opposite the town of Rewa, the dwelling-house that they had occupied having been blown down in the tremendous storm* which happened on the 25th of February, 1840.

* This storm appears to have been coincident with, if not part of, the gale that occurred at New Zealand on the 1st of March.

After Captain Hudson had spent some time with the missionaries, my messenger, Paddy Connel, made his appearance and delivered him my letters. Paddy had a very awkward mishap in rounding Kamba Point, for his canoe had capsized, and he had been obliged to swim for his life. He had thought, as he said, that some ill luck would overtake him, and had, therefore, tied my letter in the handkerchief on his head. By this means he kept it dry, and he believed the important paper, as he called it, had kept him from drowning.

Although it had rained hard, Captain Hudson resolved to fulfil his promise to the king, of showing him some fireworks, and the gunner had been ordered up with rockets, fireworks, &c., for that purpose. He, therefore, proceeded across the river to the king's house, where he found a large collection of natives. The house is large, and in shape not unlike a Dutch barn: it is sixty feet in length and thirty in width; the eaves were six feet from the ground, and along each side there were three large posts, two feet in diameter and six feet high, set firmly into the ground; on these were laid the horizontal beams and plates to receive the lower ends of the rafters; the rafters rise to a ridge-pole, thirty feet from the ground, which is supported by three posts in the centre of the building; they were of uniform size, about three inches in diameter, and eighteen inches apart. The usual thick thatch was in this case very neatly made. The sides of the house were of small upright reeds, set closely together. All the fastenings were of sennit, made from the husk of the cocoa-nut. Some attempts at ornament were observed, the door-posts being covered with reeds wound around with sennit, which had a pretty effect. There are two doorways, one on each side: these are only about three feet in height, and are closed by hanging mats. At the inside of the principal door are two small cannons, pointed across it, which, in the eyes of the king, give it a formidable appearance. A sort of dais was raised at one end, a few inches; this was covered with mats for the king and his wives, while at the other end mats were laid for his attendants; above was a shelf for his property, or riches, consisting of mats, tapa, earthenware, spears, and clubs. On one side of the house, as is usual among the Feejeeans, the cooking-place is excavated, a foot deep and about eight feet square; this was furnished with three large earthen pots, of native manufacture, and two huge iron kettles, obtained from some whaling-ship, such as are used for trying out oil. These were crammed with food.

Some of our gentlemen entered a short time previous to Captain Hudson's arrival, and found the king taking a meal, with his principal wife beside him stretched out on a mat. All those around him were sitting after the manner of the natives, for none presume to stand or lie down in the presence of the king. When he had finished eating and pushed the food from him, a general clapping of hands took place, after which water was brought, and the cup held to his mouth until he had done drinking, when clapping of hands again ensued. This was repeated whenever the king finished doing any thing—a piece of etiquette always observed with great strictness.

On state occasions this ceremony is carried much farther: the king's food at such times is passed

around a large circle, until it reaches his principal wife, who feeds him with her hands. Many of the chiefs always require the ava-cup to be held to their mouths. Notwithstanding all this ceremony, the chiefs, and the people sitting around them, join familiarly in the conversation, and appear otherwise perfectly at their ease.

The king at once ordered provisions for his guests, for whom seats were provided on a sea-chest. The principal article of food was the salt beef he had received as a present from the ship, and which he named bula-ma-kau. The origin of this name is not a little singular, and is due to our countryman, Captain Eagleston, who has been for several years trading among this group. Wishing to confer a benefit on these natives, he took on board a bull and cow at Tahiti, and brought them to Rewa, where he presented them to the king. On being asked the name of them, he said they were called "bull and cow," which words the natives at once adopted as a single term to designate both, and thenceforward these animals have been known as bula-ma-kau. The beef was found to be more savoury than on board ship, perhaps from being twice boiled. The king was asked to join them, which he did, although he had just finished a hearty meal. After the meal was over, a small earthen finger-bowl was brought to the king to wash his hands, and as the attendant did not seem to be prepared to extend the like courtesy to our gentlemen, a desire for a similar utensil was expressed and complied with, although apparently with some reluctance. In like manner, when the jar of water was brought to the king, one of the party seized upon it and drank, and the rest followed suit, to the evident distress of the attendant. It was afterwards understood that his anxiety arose from the vessel being tabooed, as every thing belonging or appropriated to the use of the king is. The Papalangi chiefs are exempted from these restrictions.

When the meal was finished, the whole company seated themselves in a semicircle. The house was now converted into an audience-hall, and the officers and stewards of the king entered to render their report of the day respecting the management of his business. A chief had just arrived to pay his respects to the king, and was dressed in a piece of new tapa, which was wrapped around his body in numerous folds. When he had seated himself, he unrolled it, and tore it into strips of three fathoms in length, which he distributed to the chiefs around him, who immediately substituted it for their own dresses. This chief was the messenger announcing a tribute from Kantavu, and he had come to receive the commands of the king relative to its presentation, which was fixed upon to take place the next day.

Ava was chewing when Captain Hudson and his party entered. They were kindly received by the king, who seated them near him. There is a peculiar ceremony observed among this people in mixing their ava. It having been first chewed by several young persons, on the pouring in of the water, they all, following the ambati, raise a kind of howl, and say, "Ai sevu." The people present were arranged in a semicircle, having the chief operator in the centre, with an immense wooden bowl before him. The latter, immediately after the water is poured in, begins to strain the liquid through

the woody fibres of the van, and at the same time sings. He is accompanied in his song by those present, who likewise imitate all his motions with the upper part of their bodies while in a sitting posture. The motions keep time to the song. The king joined occasionally in the song; and when any important stage of the operation was arrived at, the song ceased, and a clapping of hands ensued. As each cup was filled to be served out, the ambati sitting near uttered the same wild howl as before. The first cup is filled from another, that answers both for dipper and funnel, having a hole in it, over which he who brews the ava places his finger when dipping, and then withdrawing it, lets the liquid run out in a stream. They are very particular to see that no one touches the king's cup except the cup-bearer.

On the present occasion, a worthless Englishman by the name of James Housman, called Jim or Jimmy, officiated. Few would have distinguished him from a native, so closely was he assimilated to them in ideas and feelings, as well as in his crouching before the chiefs, his mode of sitting, and slovenly walk. On the king's finishing drinking, there was a general clapping of hands; but when the lower order of chiefs were served, this was not observed, and in lieu of it, there was a general exclamation of "Sa madaa" (it is empty). After ava the king rinses his mouth, lights his cigar, or pipe, and lolls on his mat. It was laughable to see the king's barber take his ava; as he is not allowed to touch any thing with his hands, it becomes necessary that the cup shall be held for him by another person, who also feeds him. One of the officers gave him a cigar, which was lighted and put in his mouth, and when he wished to remove it, he did it in a very ingenious manner by twisting a small twig around it.

The king made many inquiries, spoke of his riches, his patent rifle, and the feast he intended to give; but he wanted a double-barrelled gun. He likewise spoke of being desirous of sending his two little girls (the only children he has) to the missionary school, but their attendants (they have male nurses) were such thieves they would steal every thing they could lay their hands on from the missionaries, and in this way would give him a great deal of trouble. Captain Hudson induced him to promise to build the missionaries comfortable houses, as soon as the weather became good, and he had received his tribute from Kantavu. He spoke kindly of the missionaries, and seemed well satisfied that their object was to do himself and his people good. The king ordered his household to chant a kind of song, for the amusement of his guests, the subject of which was the adventures of a chief on a voyage, after leaving his wife, and her resolution to destroy herself in consequence of his failing to return.

About nine o'clock the fireworks were exhibited. When the first rocket was sent off, the natives exhibited fear and excitement; the king seized Captain Hudson by the hand and trembled like a leaf. When the rockets burst, and displayed their many stars, they all seemed electrified. The effect produced by the blue-lights on the dark groups of naked figures, amazed and bewildered as they were, was quite striking, particularly as the spectacle was accompanied by the uncouth sounds of many conchs, and by the yell of the savages, to drive away the

spirits they supposed to be let loose and flying in the air. Paddy Connel, alias Berry, told them that nothing but the unwillingness we had to do them injury prevented us from sending them to Ambau, ten miles distant, and he said there was no doubt that they believed that it could be done. This exhibition excited the wonder and amazement of all the country round, and induced them to believe that these flying spirits were collected for the destruction of Rewa, and that they themselves would be the next to suffer.

After the fireworks they all retired, Captain Hudson taking up his abode with the king, and continuing to talk with him until a late hour. When they retired to their sleeping apartments, he found his place of rest was divided by tapa-cloths and screens from the rest of the apartments of the house, and well furnished with musquito-netting. Ere he got to sleep, he was surprised to find his musquito-net moving, and still more so when he saw the figure of a woman, one of the king's own wives, of whom he has a large number, endeavouring to become his bedfellow. This was to him an unexpected adventure, and an honour of which he was not ambitious. He therefore called loudly for Paddy Connel and Jimmy, the king's body-servant and cup-bearer, and through them very politely declined the honour; but the lady positively refused to go away, saying that she had been sent by the king, and must sleep there; that she durst not go away, for the king would *club her*! She was told that she must go, that the matter would be arranged with the king in the morning, and she need have no fears about it. She then left the musquitonet, although with evident alarm as to the consequences, and would go no further. Seeing this, Captain Hudson sent Jimmy to the king, to say he did not wish a bedfellow; to which the monarch replied it was well, and directed the woman to withdraw, which she did as soon as satisfied that it was the king's command. This circumstance, together with the continued trampling of the mice, with which the palace is overrun, drove away any thing like sleep; and Captain Hudson, in self-defence, was obliged to pass the remainder of the night with Paddy and Jimmy over the fire.

As soon as the day dawned, his majesty, who is an early riser, called for his ava, and her majesty called out lustily for Jimmy to light a cigar and bring it to her in bed, for she is as fond of cigars as her royal spouse. After the king had drunk his ava and smoked his cigar, they had breakfast of baked pig, taro, and yams. The repast was spread upon a mat; after which Captain Hudson, accompanied by the king and Paddy Connel, crossed the river, to the missionaries, where they partook of a second breakfast, the king behaving himself with great decorum at the table; and Paddy, too, took his second lunch behind the door, with great enjoyment. The king renewed his promises to build their houses, as soon as the weather became fine, and said that then he would not leave them until they were finished. This engagement, I am happy to say, he fully performed. After breakfast, they again crossed the river to Rewa, and the weather having cleared up, the town presented an entirely different appearance. The scenery around Rewa is fine. There are in its neighbourhood many creeks, not unlike narrow canals, bordered on each side with rich and beautiful vegetation, resembling

that of Oriental regions. Dr. Pickering and Mr. Rich threaded many miles of these creeks, in the canoe of Mr. Cargill, who was kind enough to lend it to them. During this excursion they landed and went to a village, where they saw a well-planned ball-alley, kept in good order, level and clean. Taro and sugar-cane were found to be extensively cultivated. After wading across several creeks, they finally reached an uncleared wood, consisting of large trees of *Inocarpus*, *Barringtonia*, and *Uvaria*, with palms and pandanus, resembling the vegetation of Ovoulau. The country appeared very wet, and was full of mud-holes and small creeks, which rendered walking irksome. They returned to Rewa by dark, and the next day proceeded in another direction, when a Feejee dandy offered to be their guide, and was extremely attentive to them throughout their excursion. He refused all compensation, until a little girl, who was near, seeing a Jew's-harp, requested to have it. He then accepted it, and gave it to her. This act, together with his civil and attentive behaviour, produced a favourable impression upon them.

The town of Rewa, though in a low situation, has a picturesque though singular appearance. It extends about a mile along the river, and contains from five to six hundred houses of all sizes, from the lofty mbures with their pointed roofs, and the barn-like edifices of the chiefs, to the rickety shanties of the kai-sis, and the diminutive yam-houses, perched on four posts, to protect the yams from the depredations of the rats. It is every where intersected by narrow lanes, closely shut in with high reed fences.

The party visited the most conspicuous houses of the place. The first which they saw was the mbure, situated on the spot where the king's father was murdered; the mound on which it is built is an artificial one, ten feet high. The mbure is about twelve feet square, and its sides or walls only four feet high; while its high-pitched roof rises to the height of about thirty feet. The walls and roof of the mbure are constructed of canes about the size of a finger, and each one is wound round with sennit as thick as a cod-line, made from the cocoa-nut husk. At a little distance, the whole house looked as though it was built of braided cord, and presented a singular and curious appearance, creating a favourable idea of the skill as well as labour expended in its construction.

The next building visited was that of the king's women. This is one hundred and eighty feet in length, twenty-four feet wide, and thirty feet high. Here were a number of women engaged in making mats, tapa, and baskets. They were gay and merry, though busily engaged at their work.

Another large spirit-house was next visited, in which the mountaineers congregate; and on their exit from it they saw a bull near the door, which the natives, in essaying to follow the party, had to encounter. It was not a little amusing to see them spitting at the beast to drive him off.

Ngaraningiou's dwelling was then visited. This is considered the most elegant house in the Feejees. It is very elaborately ornamented with sennit and braid. Order and decorum reign throughout, for Ngaraningiou is extremely dignified and reserved in his domicile, and is reputed to be somewhat of a tyrant. He will not suffer any of the natives to approach and gaze in at his doors, which is a

common practice with them; and when, on one occasion, a stranger took the liberty to peep in at his door, he is said to have asked him if his head was made of iron that he dared thus to presume.

Thokanauto's house was occupied by several of our gentlemen during their stay. It is quite a large establishment, and was one of the noisiest that can well be imagined; for Phillips himself being absent with the boats, his wife did not possess the requisite authority to maintain order. On the first night of their lodging there, about fifty persons, men, women, and children, were collected, feasting, drinking ava, and maintaining a prodigious racket. They were apparently engaged in detailing and discussing the events that had taken place on board ship, and the narrative was constantly interrupted by jokes, laughter, expressions of astonishment, and arguments leading to sharp words, until the shrill voice of the young mistress of the mansion was heard in earnest expostulation. The eloquence of Phillips's orator, and his many barbers, was not to be so easily repressed; and after a few moments' silence, an altercation arose, that gradually grew into a quarrel and terminated in a furious fight, in which one of the combatants was thrown against the musquito-bar serving as a screen to our gentlemen, breaking down one end of it. They now sought their arms, and placed themselves on their guard for self-protection, not knowing what Feejee ferocity and treachery might bring about. The hostess at last interfered with some effect, and put down the commotion, and the house was quieted for the night, excepting the rats and mice, which during the nocturnal hours took full possession. Little can one imagine the noise of these rat races; Whittington's cat here would indeed be worth her golden price.

Mr. Agate made good use of his short stay at Rewa. While wandering about, he was met by a priest, who came to him and signified by signs he wished him to sketch something, and at the same time pointing to a house. Mr. Agate followed him in. There were a large number of retainers present, and shortly after his entrance a man was aroused from his mat, who said he wished his likeness taken. His head was dressed in the most elaborate and extravagant fashion of Rewa, and from the number of his retainers he appeared to be a high chief. A day or two after he proved to be the notorious Vendovi, brother to the king, and the person whom we desired to capture. He had his face smeared with oil and lamp-black.

From his head-dress our gentlemen recognised him as the individual who had been their guide in one of the short excursions they had made in the neighbourhood, and with whom they had been so much pleased when they offered him a reward for his services.

Mr. Agate also obtained good likenesses of the king and queen.

Whilst he was employed in sketching these, he witnessed the delivery of their tribute by the people of Kantavu. When the king was seated in state, with his principal officers around him, the chiefs of Kantavu appeared, each encircled with many folds of tapa and mats. After leaving their clubs, &c., near the door, they entered, crouching upon their hands and feet, and thus passed round the semicircle to their appointed places. Their chief continued to proceed towards the king, and when

near, presented his majesty with a whale's tooth, neatly slung in the manner of a powder-horn. The king, on receiving it, answered, "Endina." The chief then retired, and was followed by another, who, after disburdening himself of the tapa in which he was enveloped, gave place to another, and so on to the last. Each offering was acknowledged by the king in the same tone of voice and manner. When all had been received, they retired in the same order they had entered, and the king took especial care to place the new acquisitions among his valuables. This was understood to be the tribute for a year.

These presents are usually received in the square before the king's house, and a dance generally follows. But owing to the heavy rains, which had converted not only this spot, but the whole of Rewa, into a mud-puddle, they were deprived of an opportunity of witnessing one of these tribute dances; a deprivation which they much regretted, for foreigners seldom have an opportunity of seeing them.

The expedition under Lieutenant Budd, that went to explore the river, had now returned, after having proceeded forty-five miles above Rewa, which is ten miles farther than it had been before ascended. The party consisted of Lieutenant Budd, Passed-Midshipman Davis, and Mr. Peale, with two boats. They left the ship at one o'clock, and in consequence of rain took refuge in an mbure at the town of Vatia. There they found a large quantity of arms, collected by a tax on each male, of a spear, club, &c. These being kept in a consecrated place, the wounds made by them are considered as always fatal, while the same kind of injury by a new or unconsecrated spear would heal. They had here an opportunity of seeing the reverence paid to Phillips, who is a very high chief. Whenever the natives saw him, they invariably dropped on their hams until he passed; when he spoke to them, they clapped the palms of their hands together; and in his presence none presumed to walk upright.

In the village they saw quantities of the cyrenas and lingula shells, the tenants of which had been eaten by the inhabitants. They found subsequently on their trip, that the former made excellent soup. This village is famous for its pottery, and some earthen jars were seen that would hold a barrel of water. The clay of which they are made is yellow, and is dug out of the banks of the river. The mode of modelling these vessels is described in another place. The pots are very light, and of many fanciful shapes; but they are quite fragile.

They reached Rewa before dark, and took up their lodgings in Phillips's house, which is one of the largest in Rewa, and built in the same manner as the king's. Screens of ornamented tapa were used to divide it into apartments, and the floor was neatly covered with mats. The furniture consisted of a hand-organ, table, benches, several arm-chests, and a closet. To crown all, the supper-table was laid with a cloth, dishes, plates, knives, and forks, and they were waited on by his white steward (an Italian), who was left here sick by The Currency Lass under his charge. He has also a white carpenter.

The night was passed uncomfortably, in consequence of the many noisy natives who assembled to drink ava. The ava-bowl of Phillips was three feet

in diameter. In drinking the ava, the first cup was handed to Phillips, and as there was more in it than he chose to drink, the remainder was poured back into the bowl. The ceremony of clapping of hands was then performed. Instead, however, of their serving out more ava from the bowl, the whole was thrown away, for it is the custom that when any is poured back from the chief's cup, none must drink from the vessel. More ava was therefore prepared, which they sat drinking nearly all night. The usual savage hospitality was offered each of them, and they kept their arms and accoutrements in readiness.

The next morning they proceeded up the river, the banks of which were from eight to ten feet above the water, and covered with a thick growth of reeds. Beyond them are well-cultivated fields of taro, yams, and bananas, as before described; all giving evidence of the overflowing of the banks. Islets were continually passed, and many towns containing from two or three hundred to a thousand inhabitants. Numerous creeks disembogued on both sides.

The town of Non Souri was next passed. Here the chief Cornubalavoo sent presents to them—he is the cousin of Phillips—and afterwards accompanied them up the river in a canoe.

About seven miles up from Rewa is a creek leading to Ambau, which is passable for canoes at high water. The town of Natacallo is here situated, and the first rise of hills takes place. This is one of their great battle-grounds, and was, according to Phillips, the scene of many of his deeds, which he recounted.

About a mile above this there is a bar which extends nearly across the river. The channel lies close to the hills, which are two hundred feet in height. Below this bar the banks of the river are all alluvial. There is here an elbow in the river, above which is the town of Capavoo, of four hundred inhabitants, which was the scene of one of the bloody attacks of the Ambau people under the notorious Charley Savage. It is said that he was afterwards killed near Mbua or Sandalwood Bay, and so great was the enmity of the natives towards him, that he was not only eaten, but his bones were ground to powder and drunk in their ava. Phillips mentioned that a daughter of this notorious villain is now married to one of the king's brothers, at Rewa. Stopping in the evening for the men's supper, they saw many fine shaddock trees in full fruit along the banks, and Mr. Peale shot a beautiful parrot, with very gay blue and red plumage; he also obtained two ducks. Phillips says the low islands have been formed in the river by the frequent floods from the mountains "*since he has had whiskers.*" His age is supposed to be thirty-five years.

The native houses hereabouts are constructed with a solid basement surrounded with piles, to prevent their being washed away on the occurrence of the floods.

At night they stopped at the town of Coronganga, about eighteen miles above the mouth of the river. Here they took possession of the mbure, and with the assistance of Mr. Phillips's white steward, they made themselves quite comfortable. The same deference and respect were paid Phillips here as they had before observed; but, notwithstanding this, Lieutenant Budd and party took

every precaution to prevent surprise, to convince the natives that their watchfulness was never asleep.

The banks showed a rise and fall of the water during the night. It was full tide about eleven o'clock at night; according to Phillips, the tide flowed some miles above this place. The current of the river was found by the boats to be about a mile and a half the hour.

Having passed a comfortable night, (more by reason of their own fatigue than the comforts of the mbure,) notwithstanding the mosquitoes and bats, which were both very numerous, they left the town of Coronganga at an early hour in the morning. The best possible understanding existed between themselves and the natives, and they distributed presents to the chiefs, for which the latter expressed many thanks.

Shortly after leaving Coronganga, they passed the town of Nacundi, containing about six hundred inhabitants. The scenery here was beautiful, being embellished by many clumps of noble trees, resembling our oaks in their wide-spreading branches, covered with vines, and interspersed with ferns and tall graceful palms. The banks were here twelve feet high, and steep. From appearance the country is thickly populated, notwithstanding the destructive wars which have been waged with the people of Ambau. All the inhabitants were observed to be clustered in the villages, for the purpose of mutual protection; and the same reason causes them to choose as their sites for building, either some inaccessible point, or a place that affords facility for fortification.

Five miles above Coronganga, the country changes its character; the river passes by cliffs of sandstone five hundred feet in height, whose stratification dips ten degrees to the eastward. Ranges of hills now rear themselves to a goodly height, and extend some miles back into the interior.

They next passed the town of Naitasiri, where one of the brothers of Phillips, called Savou, is chief. Naitasiri is the capital of this district, and is next in power to Rewa, on the island of Vitilevu. Phillips was not disposed to land here; for a misunderstanding had occurred between him and his brother, in consequence of Savou having taken charge, for Phillips, of some two hundred hogs, of which, when demanded after a short time, only ten or fifteen were to be found, Savou having either eaten or given away the remainder. Cornubalavoo went on shore in his canoe, and took Savou on board, who spoke as he passed Phillips, but the latter would not condescend to return his salutation.

As they passed further up the river, they were preceded by Savou, and when opposite the town of Tavu-tavu, a canoe came off with a present of baked taro and yams, from Savou to Phillips and Lieutenant Budd. This was considered as a peace-offering, and appeared to be acceptable, at least to the vanity of Phillips.

In the vicinity of this village there was much sugar-cane growing. Just above it is an elbow in the river, the point formed by which was that reached by Captain Bethune, of H.B.M. sloop of war Conway. This Lieutenant Budd called Bethune's Point. They shortly afterwards passed the small town of Viti, opposite to which is a cliff four hundred feet in height, overgrown with shrub-

berry; and near this many streamlets enter the river. Just after passing this place, the guides pointed out a creek that led to Ambau. The country appeared here more thickly peopled than that below; many more natives were seen, and the whole surface was well cultivated. There was great astonishment evinced at the appearance of our boats, and it is believed our people were the first whites who had been thus far in the interior.

The mountain district was reached at thirty-six miles from the mouth of the river, and the ridges were from twelve to fifteen hundred feet high. The Wailevu, which I have named Peale's River, here makes a turn to the westward of four miles, to a point where it divides into two branches. That on which they were comes from the mountains direct, while the other, taking a course to the south, is said to disembogue at the town of Indimbi, on the south shore, about ten miles to the westward of the harbour of Rewa, and opposite to the island of Mbenga. Having reached the mountains, they could proceed no further in the boats, and began to retrace their route. Near the place where they turned back, there was a remarkable waterfall of several hundred feet leap.

The natives state that this river flows from a large lake in the centre of Vitilevu, and that, by ascending the heights above Ragi-ragi, the water may be seen*.

On their return they were again presented by Savou with a load of cooked provisions, and a fine red-striped variety of sugar-cane. Savou seemed to be very desirous of mollifying Phillips's anger. They were well drenched with rain all the afternoon, and reached their old quarters at Coron-ganga just at dark. They had a disagreeable night. The next morning they set out early, and reached Rewa in the afternoon, without accident. Their royal guide presented every one of the party with something as a token of remembrance, even to each of the boat's crew.

Phillips returned on board ship with them, where a handsome present awaited him, for his good and hospitable conduct.

The number of inhabitants comprised in the towns and villages on this river is, from the computation given by Phillips, about six or seven thousand.

The party having now returned, all the officers were ordered on board.

Captain Hudson's next step was to endeavour to capture Vendovi. From information he obtained, it was believed that this chief intended to visit the ship the next day, to receive the presents which, as was given out, awaited his coming. Captain Hudson would then have had an opportunity to detain him without any difficulty or disturbance whatever. They all, therefore, left Rewa for the ship, and on the way down the river, stopped at the small village of Vatia to purchase some earthenware; this is a village of potters. They were at once surrounded by several hundreds of the inhabitants, all pressing their wares on them, of which they bought several specimens, but not enough to satisfy the vendors, who, when they found that the officers did not intend to purchase more, hooted and shouted many offensive epithets, that only became known through the interpreter's report.

* This I very much doubt, as from the topography of the island it does not seem probable.

At an early hour on the 21st, the king and queen, one of their children, and Ngaraningiou, together with the son of Vunivalu, came on board. As Mr. Phillips was already there, all the royal family, excepting Vendovi, were, by their own act, within our power, and it was said he was also to come in the afternoon. There was an evident constraint in the manner of the visitors, which was apparent from their not expressing the usual astonishment at every thing they saw. Their little daughter, of five or six years of age, had a sprightly countenance, and, as is usual, her head was enveloped in twisted locks. One of the officers presented her with a sash, which he tied on, and the bystanders were much amused to see the queen rearranging it after the Feejee fashion.

The queen was observed to have paid more attention than is usual to the decency of her dress, being enveloped in the pareu, after the Touga fashion. She is a fine-looking woman, with an intelligent countenance. The king wore his maro, accompanied with the seavo, which is the name they give to the long trains of tapa attached to it, that are worn by chiefs to denote their rank. The seavo of the king trailed several feet on the ground.

The person who attracted the most attention was Ngaraningiou, with his attendant chiefs. In truth, he came in fine style, moving towards the ship in his beautiful canoe, with its long streamers (denoting the rank of the owner) floating in the breeze. When he came on board, it was at once seen that he had decked himself specially for the occasion. His face was painted red and black, which, if possible, improved his appearance as a savage chief. He was, by far, the finest-looking person among the whole assembled group. His hair was frizzled out with great care; around his neck he wore a necklace of shells, with armlets of the trochus; and his thighs were encircled with a black cord. The usual seavo was worn by him, and over it a flounce of black fringe, which added much to the effect of the whole, and gave him the look of being partly dressed. Every exertion being made to entertain them, the constraint they were under was soon dissipated, and never did people seem to enjoy themselves more.

It was hoped by Captain Hudson, until afternoon, that Vendovi would make his appearance; but four o'clock came, and no chief. Captain Hudson then concluded that he was not coming, and that it would be impossible to take him, unless by force. He therefore determined to try the expedient of retaining those he had on board until Vendovi should be forthcoming. He ordered the drums to beat to quarters, and placed a sentinel at the cabin-door, ordering at the same time that all their canoes should be retained alongside. The king and chiefs were immediately informed, through the interpreter, that they were prisoners, and that the object was to obtain Vendovi, the murderer of the crew of the Charles Doggett, some eight years before. It may readily be imagined that this announcement threw them all into great consternation, while it was, at the same time, a matter of surprise to all the officers of the ship. The poor queen was apparently the most alarmed, and anxiously inquired of Phillips if they were all to be put to death. Phillips was equally frightened

with the rest, and it was observed that his nerves were so much affected for some time afterwards that he was unable to light a cigar that was given him, and could not speak distinctly. Captain Hudson reminded them, that they had visited the ship of their own accord, and without any promise of safeguard from him; that his object was to obtain Vendovi, and that all hopes of obtaining him without this decisive measure had failed; that he meant them no harm, but it was his intention to detain them until Vendovi was brought off. The canoes were likewise secured, and orders given to allow none to leave the ship. The whole party thus made prisoners consisted of seventy or eighty natives.

The king and chiefs, when they had recovered themselves a little, acknowledged that our demand was a just one; that Vendovi deserved to be punished; that he was a dangerous character among themselves; and that they would be glad to see him removed. At the same time, they said they thought the capture of Vendovi impossible, and gave many reasons for this opinion. They expressed great fears for the missionaries and their families, when the people of Rewa should hear of their detention. Captain Hudson had assured himself previously of the perfect safety of the missionaries and their families, and well knew that this was a ruse on the part of the king to induce him to change his purpose.

They soon found him fully determined in his purpose. It was shortly arranged that, with his permission, Ngaraningiou and another chief should go quietly to Rewa, take Vendovi by surprise, before he had time to escape, and bring him on board alive if possible. In order to insure protection to the missionaries and their establishments, they were particularly told that the missionaries had nothing to do with the business, and did not know of it, as was evident from Mr. Jagger having returned to Rewa before they were detained, and that every influence must be exerted to protect them from harm, or the prisoners might expect the most exemplary punishment.

The selection of Ngaraningiou as the emissary to capture the murderer was well-timed, as Vendovi had always been his rival, and the temptation to get rid of so powerful an adversary was an opportunity not to be lost by a Feejee man, although that adversary was a brother. He was soon under way in his double canoe, which, with its enormous sail spread to a strong breeze, was speedily out of sight.

The king, at Captain Hudson's request, informed his people that none must attempt to leave the ship, or they would be fired at; that they must remain on board until further orders; and that, in the mean time, they would be supplied with food. One attempt was made by a small canoe to leave the ship, but on seeing the preparations for firing at it, the persons in it quickly returned.

After the departure of Ngaraningiou, the king, queen, and chiefs became more reconciled to their position. They talked much about Vendovi and the murder he had committed on the crew of the Charles Doggett, and said that he had also killed his eldest brother.

The king, during the evening, spoke much of his being a friend to the white men, asserted that he had always been so, and adduced, as an instance

of it, his conduct in the case of The Currency Lass, an English trading schooner, of Sydney, New South Wales. He said that this vessel, in going out of the harbour, had got on shore near the anchorage; that his people had assembled round about her for plunder, but that he went on board himself, and kept all his subjects off that were not required to assist. He told Captain Wilson and the owner, Mr. Houghton, who was on board, that if she got off he should expect a present, which they readily consented to give; but if she broke, and got water in her hold, the vessel and property must be his. This, he said, they also agreed to. His people, wishing her to go to pieces, made several attempts to remove the anchors, but he stopped them, and drove them away; and the only thing he did, with the hope of getting the vessel himself, while he was assisting the captain to get her off, was to send up some of his chiefs to Rewa, to give a present to the ambati, at the mbure, to offer up prayers to the Great Spirit, that he would cause her to get water in. Something went wrong with the spirit, and the vessel got clear. The only thing the owner gave him was a whale's tooth and a small looking-glass!

When the evening set in, the natives (kai-sis) were all brought on board for the night, and placed forward on the gun-deck. Here they were supplied with plenty of hard bread and molasses, which they enjoyed exceedingly, and afterwards performed several dances. The performers arranged themselves in two ranks, and went through various movements, with their bodies, heads, arms, and feet, keeping time to a song in a high monotonous key, in which the whole joined, the ranks occasionally changing places, those in the rear occupying the front, and the others retiring behind.

The inferior chiefs were provided with a sail under the half-deck; the king, queen, and their little daughter were accommodated by Captain Hudson in his cabin. The king having expressed a desire to have his evening draught of ava, some of the piper mythisticum, from which it is made, was fortunately found among the botanical specimens which had been collected, and a large and well-polished dish-cover was converted into an ava-bowl. The ava was accordingly brewed, and all the usual ceremonies gone through with, even to the king's having his own cup-bearer, Jimmy Housman, who was one of the party.

After the ava was over, theatricals were resorted to for the amusement of their majesties. This was a business in which many of the crew of the Peacock were proficient, having been in the habit of amusing themselves in this way. Jim Crow was the first piece, and well personated, both in appearance and song, by Oliver, the ship's tailor. This representation did not fail to amuse the audience exceedingly, and greatly astonished their majesties. Jim Crow's appearance, on the back of a jackass, was truly comical: the ass was enacted by two men in a kneeling posture, with their posteriors in contact; the body of the animal was formed of clothing; four iron belaying-pins served it for feet; a ship's swab for its tail, and a pair of old shoes for its ears, with a blanket as a covering. The walking of the mimic quadruped about the deck, with its comical-looking rider, and the audience, half civilized, half savage, gave the whole

scene a very remarkable effect. The king confessed that if he had been alone, he would be much frightened at the curvetting and braying of the beast before him. The queen, on its being explained to her that what she saw was only two men, expressed the greatest astonishment in her eager, incredulous look. The dance of "Juba" came off well, through the exertions of Howard and Shepherd, but the braying ass of Godwin, with the Jim Crow of Oliver, will long be remembered by their savage as well as civilized spectators. The whole company seemed contented and happy; the king had his extra bowl of ava, the queen and chiefs their tea and supper; and all enjoyed their cigars, of which they smoked a great number. On Captain Hudson expressing to the king his hope that the queen had got over her fears, and inquiring if she was tired, he replied, "Why should she be troubled? is she not with me? When I die, must not she die also?" Thereby intimating that were he in peril, she would be equally so, whether present or absent. The theatricals having been ended, they all retired to rest.

One could not but perceive the great difference between the Tongese and Feejees who passed the night on board. The former are generally Christians, or missionaries' people; they were orderly and respectable, and before going to rest, quietly and very devoutly met and had their evening prayer; which, contrasted with the conduct of the others, had a pleasing effect.

Mr. Phillips, in recompense for his attention to Lieutenant Budd and Mr. Peale, was well provided for by the officers; and, at various times, imparted information respecting the history of Rewa, his own family, and others, that may be looked upon as quite authentic; and I have little doubt that it will prove interesting to the reader.

By the aid of the whites, Tambiavalu, father of Kania, was established as king, upon the dethronement of the reigning family, of whom Vuniyalu, the governor, is a descendant. Rewa at this time was of little consequence, comprising only the small town of Ndraketi, from which the king now derives his title.

Tambiavalu governed with great firmness and wisdom. During his reign, all criminals met with exemplary punishment. According to the Feejee custom, he had many wives, the chief among whom was a descendant of the family of Mbatitombi, who reigned at Ambau before Bamiva, the father of Tanoa, succeeded in gaining the kingdom. Although considered the queen, and holding the title of Ramdini-Ndraketi, she was not the highest in rank. There was also among the wives of Tambiavalu a sister of Tanoa, named Salaiwai, who was younger, and in consequence had not the station to which her rank entitled her to.

Phillips gives Tambiavalu the credit of having had a hundred children by his numerous wives and concubines, a statement of which those best acquainted with Feejee history do not doubt the correctness. Of this large progeny, the children by the two above-mentioned females are alone entitled to any rank. By the queen, Ramdini-Ndraketi, he had four sons, named Madonovi, Kania, Valivuka, and Ngaraningiou. By Salaiwai, he had only two, Seru and Thokanauto (Mr. Phillips). Of the six, Kania, Ngaraningiou, and Thokanauto are still living.

Tambiavalu had a long and prosperous reign, and under him Rewa assumed a rank among the chief cities of the Feejees, having acquired much territory, and among the rest, the island of Kantavu. His eldest son, Koraitamano, was the child of a Kantavu woman of rank; he was, in consequence, a vasu of the most important possessions of Rewa, and had many connexions and friends throughout the country; he had so ingratiated himself with the chiefs and people, that he could have made himself king on the death of his father Ramdini-Ndraketi, the queen, who is represented as a most artful as well as unscrupulous woman, was fearful that his popularity might become disadvantageous to her children, and she determined to have him removed. She managed to instil into the king's mind suspicions that Koraitamano intended to seize upon the succession, which determined him to put this son to death. Koraitamano received a hint of his intentions, and was able to evade every attempt. On some occasions he was obliged to flee to distant places, once to Ra, the western end of Vitilevu, and another time to Mbenga, where he remained until a kind of reconciliation took place, when he was induced to return. He had not been long in Rewa, before the queen recommenced her machinations for his destruction, and his father also resumed his designs against him.

Koraitamano was doubtful whether again to resort to flight or remain, when some chiefs who were hostile to the king, represented to the young chief that the only method to secure his own safety effectually was to put his father to death, assuring him they would stand by him in the struggle. By their persuasions he was induced to accede to their designs. At night he set fire to a canoe-house, and coming into his father's dwelling, he approached the place where he was sleeping, and cried out, "Do you lie here asleep when your city is burning?" Tambiavalu immediately started up and ran out. Koraitamano following closely after him, watched an occasion, struck him with his club on the back of his head, and killed him on the spot; after which he retired to his own house, trusting to the promises of his friends and adherents, that they would protect and defend him. But the queen was more than an equal for his cunning, and her hatred caused her to go to the greatest lengths in wreaking her vengeance upon him. She had the body brought to the house, where, observing that the external injury to the head was slight, she conceived the singular plan of making the deed of the assassin and his friends recoil upon their own heads. She, therefore, at once raised a cry that the body showed signs of life, and that her husband was not dead. She then had the body conveyed to the farther end of his house, under the plea that he required to be removed from the noise; and no one was suffered to approach the body but herself and a Tonga woman, who was her confidant. She soon spread the report that the king had recovered his senses, but was very weak, and called upon several chiefs in the king's name, saying that he required the instant death of Koraitamano. The chiefs convened a meeting to consider the course that ought to be pursued, but could come to no decision, in consequence of the general opinion that the conduct of Koraitamano was justifiable; although, on the other hand, they feared the wrath of the king, in case he

should recover, particularly those who had advised and wished to uphold Koraitamano. The queen becoming aware of their hesitation, on the following morning took some whales' teeth and other valuables, and presented them herself to the chiefs, saying they were sent by the king to purchase the death of his son. Fearing to hold out any longer, they went to Koraitamano and announced to him the fatal mandate, and he was immediately killed. They then proceeded to the king's house to report that the deed was done, and on approaching the couch of the king, the putrescent odour which proceeded from the corpse at once disclosed to them the deception that had been practised. It was, however, too late to amend the matter, and Madonovi, the eldest son of the queen, now succeeded his father without opposition. One of the first acts of Madonovi was to build an mbure over the spot where his father was murdered. His succession deprived Seru and Thokanauto (Phillips) of their right to the throne, and of course excited their hostility to the reigning chief, who was by no means so popular as his father, and did not govern to the satisfaction of his subjects. Seru, who was the oldest of the two malcontents, was a very tall and remarkably handsome man, and had great influence among the people, which excited the jealousy of the king. Such was his strength that it is said he could knock down a full-grown hog by a blow on the forehead, and would break a cocoa-nut by striking it on his elbow.

Mutual words of defiance had passed between the two brothers, and they were living in daily expectation of some encounter that would bring on serious disturbances. During the height of this feeling, they met on the road, where the scene that was enacted was quite remarkable, and the narration of it by Phillips equally so.

Seru had one of the short missile clubs (ula) in his girdle, which Feejee men usually wear stuck in behind. As Madonovi approached, Seru placed his back against the fence, without any design. The king had three shadocks (molitivi) in his hand, of which, as he came up to Seru, he held one up and called out in sport, that he meant to throw it at him. The thought then came into Seru's mind that if the king threw and hit him he would let him pass, but that if he missed he would take the opportunity to put him to death. He, therefore, replied to his brother in the same jocose manner, "Throw, but if you miss, I'll try." The king threw, but missed. He then drew nearer, and holding up another of the shadocks, cried out, "This time I will hit you." To which Seru replied, "Take care; if you miss, then I'll try." The king threw again, but Seru, by a quick movement, avoided the missile. Madonovi then advanced to within two or three yards of Seru, saying, "This time I think I shall hit you." Seru made himself ready to avoid it, and with his hands behind him, said, "If you miss, then I take my turn." The king threw the third time and missed, for Seru stooped, and the shaddock passed over his shoulder. Seru then drew himself up, flourished his club in the air, and exclaimed in tones of exulting mockery, "Aha, I think you did not see this!" With that he hurled his weapon with so deadly an aim that it crushed the skull of the king, and killed him on the spot.

As soon as this event became known, the queen

with her other sons fled to Ambau, leaving the supreme power in the hands of Seru, who, however, did not take the title of Ndraketi, but adopted that of Tui Sawau, after the chief town of Mbenga, on which he had made war and captured, and by which title he was thenceforth known. He was not, however, long left to enjoy his authority. The exiled family made several unsuccessful attempts to destroy him, and at last induced Vendovi, by a large bribe, to undertake his destruction. Vendovi managed to get to Rewa unobserved, and looking in at the door of Thokanauto's house, saw Tui Sawau lying on his mat eating. He immediately levelled his musket and shot him. Four balls passed through his breast, but such was the strength of his constitution, that he survived for eight days. This occurred in the year 1827.

When it became known at Ambau that this fratricide had been committed, the queen and her sons returned to Rewa, and Kania assumed the direction of the government, to the exclusion of Thokanauto.

The character of Phillips, who calls himself the white man's friend, is rather equivocal. He is said while young to have been fed mostly on human flesh. When I saw him on board my ship at Levuka, I told him I had heard that he liked this food, and I thought that he showed much shame at being considered a cannibal by us. His youthful practices, which he told as though some credit were due to himself for a change in his latter conduct, will tend to show how early these natives employ themselves in inflicting pain on each other. One of these was to set a sharp-pointed stick in the ground, cover it with earth, and then challenge another boy to jump with him. He would then leap in such a manner that the boy on following his example would alight upon the pointed stick, and run it through his foot. He is said also to be frequently employed by the king as an instrument of his vengeance. The missionaries relate that he was once sent to kill a native by the king's order, upon which he went to the person's house, and told him that "The king has sent me to kill you;" to which he replied, "It is good only that I should die." Phillips struck, but only stunned him, after which he returned, and told the king he had not succeeded in killing him. When the man recovered, Phillips was again sent back, and succeeded in giving him his deathblow, which he received with the same resignation as before. Notwithstanding his bad traits, he is certainly one of the most intelligent natives that I have met with in all Polynesia. He possesses much information respecting his own people, and would, if the king allowed it, be the means of effecting many improvements. He has already introduced some into his own establishment, and is very desirous of learning, but he unfortunately has not sufficient knowledge to distinguish between good and evil. He visits all the vessels that touch at this group, and says that he passes most of his time on board of them. He produces many recommendations from their commanders, which, besides recommending him, give the very salutary precaution of always being on their guard while among these natives.

The prisoners on board the Peacock were early in motion on the following morning, looking anxiously for the return of Ngaraningiou; and many

speculations were thrown out as to whether he would succeed in his errand, or connive at the escape of Vendovi. The hatred he was known to bear Vendovi, was in favour of his return with him, either dead or alive. These surmises were shortly put to rest, by the appearance of the large canoe emerging from the mouth of the river, which drew all to watch its approach. It soon came alongside, and Vendovi was recognised as a prisoner on board. The mode of his capture was singular, and shows the force of the customs to which all ranks of this people give implicit obedience. Ngaraningiou, on arriving at Rewa, went at once to Vendovi's house, and took him by surprise. Going in, he took his seat by him, laid his hand on his arm, and told him that he was wanted, and that the king had sent for him to go on board the man-of-war. He immediately assented, and was preparing to come at once, but Ngaraningiou said, "Not till to-morrow." They passed the evening and night together, and in the morning embarked to come on board.

Vendovi was at once brought on board and delivered to Captain Hudson, who forthwith examined him before the king and chiefs, and in the presence of the officers of the ship, assembled in the cabin. Vendovi acknowledged his guilt in causing the murder of part of the crew of the Charles Doggett, and admitted that he had held the mate by the arms while the natives killed him with clubs. Captain Hudson now explained why he had thought proper to retain the king and the others as prisoners, saying that the course the affair had taken had saved them much trouble, and probably fighting, for he would have thought it incumbent upon him to burn Rewa, if Vendovi had not been taken. The king replied, that Captain Hudson had done right; that he would like to go to America himself, they had all been treated so well; that we were now all good friends, and that he should ever continue to be a good friend to all white men. Vendovi was now put in irons, and the others were told that the ship would go to Kantavu, to punish any other chiefs that had participated in the act, and burn their towns. They were assured of our amicable disposition towards them so long as they conducted themselves well; and in order to impress this fully upon them, after their own fashion, presents were made them, which were received gratefully.

When the leave-taking came, Phillips appeared the most dejected of all. This seemed strange after the part Vendovi had taken in the murder of his brother, of one whom he represented as having been very kind to him as a protector, and with whom he lived when the fatal shot was fired by Vendovi. Phillips expressed himself in this way, "That as long as Seru lived he could be saucy, but after his death he was all alone, just like a stick." This kind of opposite conduct is conformable to the usual policy of this people, and is characteristic. Vendovi, at this time, was the only one of his brothers who favoured the party of Phillips, and was among his strongest adherents. I could mention many other instances of the same inconsistency of conduct on the part of chiefs.

All the party were now much affected. Kania, the king, seated himself on the right side of Vendovi, taking hold of his arm, while Navumialu placed himself on the left. Phillips walked up and

down in front. All shed tears, and sobbed aloud while conversing in broken sentences with their brother. The natives shed tears also, and none, but Ngaraningiou remained unmoved. The king kissed the prisoner's forehead, touched noses, and turned away. The inferior chiefs approached and kissed his hands, whilst the common people crawled up to him and kissed his feet. One young man who belonged to the household of Vendovi was the last to quit him; he wished to remain with his master, but was not permitted. In bidding farewell to the chief, he embraced his knees, kissed his hands and feet, and received a parting blessing from Vendovi, who placed both his manacled hands on his head. The young man then retreated backwards towards the ladder, sighing and sobbing as though his heart would break. The last request the king made to Captain Hudson was, that his own barber, Oahu Sam (a Sandwich islander), might accompany Vendovi. This was readily assented to, as he would be a useful man on board ship, having sailed in a whaler, and having some knowledge of the English language.

Mr. Cargill, the missionary, came on board the Peacock shortly after the royal party had left her, and informed Captain Hudson, that the night before, the chief who had been sent for his protection had visited him, and said that he should keep guard over him and his house, and not suffer any one to cross the river from Rewa. Mr. Cargill said there had been no kind of disturbance, the chief having remained at his house until the king returned, and he felt much indebted to Captain Hudson for the lively interest he had taken in his affairs. He did not feel at all apprehensive of danger to themselves, and there was no kind of necessity for the detention of the ship on that account. At noon Mr. Cargill took his leave. When I saw him, a few weeks afterwards, he spoke in very high terms of the conduct of Captain Hudson, and the manner in which he had conducted the whole business at Rewa. He also told me that the chiefs often spoke of it, and were fully sensible that it was just that Vendovi should be punished. Mr. Cargill spoke much of the vast benefit that would result from our visit, not only to the trading vessels and whites generally, but also to the natives, as well as the advantage it would be to the missionary cause.

The surveys of the harbour having been all completed and joined with the survey of the river, made by Lieutenant Budd and Passed-Midshipman Davis,—both of whom deserve much credit for the manner in which their operations were conducted, not only as regards the duties performed, but the care and attention they paid to the party entrusted to their charge,—preparations were now made for sailing; but, owing to the wind being ahead, they were not able to pass the reefs until the morning of the 23rd; in the mean time, Oahu Sam was received on board as Vendovi's barber. When they got to sea, Captain Hudson again examined Vendovi, before several of the officers, respecting the Kantavu murder, and the part he had himself taken in it. He stated, that he was sent by Ngaraningiou to pilot the brig to Kantavu; and that a chief of that place, called Thebau, who is now dead, was to take the vessel for Ngaraningiou. Thebau was to make what he could for himself, and was the leader of the conspiracy to murder the crew. Ten of the

crew were killed, eight of them in the biche de mar house, and the mate and boy near the boat. The people of the towns of Numbuallo, Lueti, and Roro, had cut large vines to pass under the cable, for the purpose of hauling the vessel on shore during the night. He also stated that a black man had been roasted and eaten by the natives, but that he himself did not partake. Nine bodies were given up to Paddy Connel, and were taken on board, sewed up in canvass, and sunk alongside. The bodies afterwards floated on shore, and were eaten by the natives. His statement, therefore, conformed to that of Paddy in all important particulars.

Vendovi likewise mentioned another act of his, as follows. About two years before, the mate of the whale-ship Nimrod, of Sydney, New South Wales, landed at Kantavu to purchase provisions. Vendovi saw some large whales' teeth in possession of the mate, in order to obtain which, he made him and the boat's crew prisoners. He then told the

mate to write to his captain to ransom him and his men, and that he must have fifty whales' teeth, four axes, two plates, a case of pipes, a bundle of fish-hooks, an iron pot, and a bale of cloth. These were all sent him, and they were released, he giving the mate a present of a head of tortoise-shell.

Captain Hudson, having thus successfully accomplished the capture of Vendovi, steered for Kantavu, in order, if possible, to bring to punishment more of the offenders; but the wind fell light, and he found that the ship had drifted, during the night, to the eastward of the Astrolabe Reef, and consequently would be compelled, in proceeding to Kantavu, to retrace his route. This would have occupied much time, and the prospect of gaining their port would have been faint. He therefore determined, as the allotted time for joining the boats had nearly expired, to bear up for the west end of Vitilevu; where I shall now leave him, and return to Levuka, to the rest of the squadron.

CHAPTER XXV.

FEEJEE GROUP—(CONTINUED).

EFFECTS OF THE INTENTION TO TAKE VENDОВИ—FEAR OF AN ATTACK ON THE OBSERVATORY—SERU DETAINED AS HOSTAGE—PREPARATIONS FOR RESISTANCE—RETURN OF THE FLYING-FISH—TOVA REEF—ISLANDS OF TOTOTIA—MATUKU—MOALA—REPORT OF MIDSHIPMAN MAY—MOTURIKI—CRUISE IN THE FLYING-FISH—RADE-RADE POINT—RETURN TO LEVUKA—H. B. M. SHIP SULPHUR—VISIT FROM SERU—SECOND CRUISE IN THE FLYING-FISH—WAKAIA—DIRECTION ISLAND—ISLAND OF VUNA—TOWN OF SOMU-SOMU—GOAT ISLAND—MISSIONARIES AT SOMU-SOMU—CANNIBAL FEAST—JUNCTION WITH THE PORPOISE—COUNCIL OF CHIEFS—CEREMONIES OF AVA DRINKING—RETURN TO OVOLAU—PROCEEDINGS OF THE PORPOISE BETWEEN 8TH OF MAY AND 9TH OF JUNE—ONGEA—FULANGA—ISLANDS OF MORAMBA—ENKABA—KAMBARA, &c.—FIRST VISIT TO LAKEMBA—TUI NEAU—DEPARTURE OF THE PORPOISE FROM LAKEMBA—THE TWO AIVAS—ARGO REEF—ONEATA—OBSERVATORY ISLAND—SECOND VISIT TO LAKEMBA—ASCENT OF KENDI—KENDI—WORSHIP AT THE MISSION CHURCH—HARBOURS OF LAKEMBA—LEVUKIANS—GEOLOGICAL STRUCTURE OF LAKEMBA—ISLANDS OF NAIU—TABUTHA—KATAFANGA, &c.—ISLAND OF MUNIA—ITS HIGHEST PEAK ASCENDED—ISLANDS OF TICUMBIA—SUSUI, &c.—PORPOISE ARRIVES AT SOMU-SOMU—FLYING-FISH LEAVES SOMU-SOMU—FAWN HARBOUR—ISLAND OF RATIVA—RETURN TO LEVUKA—H. B. M. SCHOONER STARLING—VISIT TO CAPTAIN BELCHER—HIS OPINION OF THE REGULATIONS—NUKULAU—ISLANDS SURVEYED BY LIEUTENANT UNDERWOOD—TOWN OF COROBAMBA—COBU ROCK—ISLAND OF ANGAU—RETURN OF LIEUTENANT UNDERWOOD—REEF OF ANGAU—ESCAPE OF THE FLYING-FISH FROM WRECK—VINCENNES LEAVES LEVUKA—DIRECTION ISLAND—DANGERS OF THE PASSAGE TO SAVU-SAVU—AMBUSH OF THE NATIVES—BAY OF SAVU-SAVU—HOT-SPRINGS—ISLAND OF GORO AND HORSESHOE REEF—VINCENNES AND PEACOCK ANCHOR IN SANDALWOOD BAY.

IMMEDIATELY after despatching Paddy Connel on his errand to Captain Hudson, Whippy came to me. He had heard, on board the ship, some intimation of the purport of the message sent to Rewa by Connel, and he advised me to be on my guard for the first movement after Vendovi's capture. He thought that an endeavour would be made by the people of Ambau to surprise the observatory, and to take me prisoner, (for the purpose of ransoming Vendovi,) for they are closely allied to those of Rewa. As our distance from Ambau was no more than a few hours' travel, it would be easy for Tanoa, or his son Seru, to fall upon us with a thousand men, before we could have any notice whatever of their approach. After hearing all he had to say upon the subject, I sent him for Tui Levuka, who came to my tent. His amazement was great when he was told what was in progress, and he seemed to be almost beside himself for

a few moments. When he was sufficiently recovered, I told him that I put implicit confidence in him; that if he suffered me to be surprised by any force, on him and his people would rest the responsibility, and that I looked to him to give me the earliest notice of any attempt to attack me. This he accordingly promised, and, at the same time, he told Whippy, the most probable persons from whom any attack would come would be the mountaineers, who were all now under the influence of Ambau, and would be easily induced to attack us. A thousand of them, according to his opinion, might be upon us in a few hours; but we had little to fear before dawn of day, for that was the only time at which they made an attack, choosing the time of the second or soundest sleep. He then went off to send out his scouts and spies, in order to bring me the earliest information.

Seru was on board the ship when I heard these

things. I, therefore, sent off word that he should be kept on board as a kind of hostage, and ordered forty men to reinforce the observatory, after dark, for the ship was not near enough to use our guns in defending it. The night, however, was quiet, and there were no signs of the natives moving about on shore. Indeed they are extremely averse to go out after dark, from a fear of meeting kalous, or spirits. Seru was amused with rockets, &c., on board, and passed his time to his satisfaction.

On the 21st, the ship was moved up abreast the observatory point, in order to protect it, and moored so that her guns might rake each side of the point in case of an attack. The knoll on which I had erected the observatory was a strong position, and we now set to work to make it more so, by clearing it of all the rubbish and brushwood that might afford cover to assailants. Signals were arranged with the ship in case of attack, to direct the fire of the guns, and all things made ready to give any hostile force a warm reception. About eight o'clock in the evening, Whippy told me that a report had reached Tui Levuka that there was trouble at Rewa, and that the king and chiefs were prisoners; but to this we gave no credit at the time. In the morning, however, I learned through him, that one old chief had got information that Vendovi was a prisoner, and that the king and queen would be released; in fact, nearly the whole story that has been related in the preceding chapter, reached Levuka before the day on which it occurred had passed. On inquiring of Tui Levuka, through Whippy, after I had heard the particulars, and learned how nearly they corresponded with the report, how he obtained his information, his answer was, "Did you not tell me to bring you the earliest news, and have my spies out?" The news must have been brought a distance of twenty miles in less than six hours, for I can scarcely believe that any native could possibly have invented the story, or could have surmised what was to take place.

Early on the morning of the 22nd, Seru left the ship and proceeded to Ambau, although I had been informed that it was his intention to go to the different islands, to bring us hogs and yams. Tui Levuka called my attention to this, and also to the fact that a messenger had brought Seru intelligence of what had happened at Rewa during the stay of the Peacock there, and of the sailing of that ship with Vendovi on board.

During this time many things occurred to keep us on the alert. On the night of the 23rd, the usual number of men were landed at the observatory, and in the night a musket was accidentally fired, which, of course, created some stir, but it proved a false alarm; it, however, served to keep up our vigilance in case of attack.

On the 26th the Flying-Fish returned, entering through the reefs after dark. Lieutenant Carr had executed the greater part of the duties pointed out in his instructions.

Lieutenant Carr reached Lakemba on the morning of the 17th; and on leaving Lakemba, proceeded with the tender to Vanua-vatu, where they began their surveys. The tender's boats were launched, and the island was circumnavigated. It rises gradually, on all sides, to the height of several hundred feet, and is covered with foliage; it is six miles in circumference, and is encircled by a reef, through

which there are two entrances for boats, but neither of them is sufficiently wide for the entrance of a vessel. This island is not inhabited, but the natives resort there for the purpose of fishing.

Lieutenant Carr next surveyed the Tova Reef, which was found about equidistant from Totoia, Moala, and Vanua-vatu. He represents it as one of the most dangerous outlying reefs in the group; it is a mile in diameter, and nearly circular: the two former islands are in sight from it, but the latter, being low, was not seen. At low water this reef is quite dry, and it then forms a snug basin, into which there is a shallow passage for boats. The soundings within the reef were found extremely irregular, varying from two to fourteen feet. At high water the reef is entirely covered, and the sea breaks on it at all times.

The next island that claimed Lieutenant Carr's attention was Totoia. Here he discovered a passage leading through the reef, into which he went with the tender, and anchored in fifteen fathoms, half a mile distant from the shore. They found here a canoe from Vavao, manned by Tongese. Totoia is high and much broken; it resembles the rest of the group in its volcanic formation; it is covered with luxuriant foliage, and has many fertile valleys. Lieutenant Carr thinks that this harbour can be useful only as a temporary refuge. It is filled with broken patches, has very irregular soundings, from three to thirty fathoms, and the passages between these patches are quite narrow and tortuous. The weather setting in bad, they were obliged to forego the examination of a small part of the southern portion of the reef for openings: it is believed, however, that none exist.

Matuku was the next island. Of this they began the survey on the south-eastern side, whence they passed round the southern shore. On the western side they discovered an opening through the reef, through which they passed, and anchored in one of the best harbours in the group. This I have called Carr's Harbour. Its entrance is, perhaps, too narrow for a ship to beat in, which the prevalence of easterly winds would generally require to be done; but the channel to it is quite clear of patches, and the passage through the reef is a good one, though long. Within the reef there is a circular basin of large extent, in all parts of which a ship may select her berth with good bottom. Wood and water are to be had here in plenty. The natives resemble those of the other islands, and are considered as possessing skill in the use of their arms.

Moala was next visited. It is a high volcanic island. There is an opening through the reef, on the west side, that leads to an inferior harbour, which the boats surveyed. They found here a white man, calling himself Charley, who was of some use to them in pointing out the localities. Lieutenant Carr sent him, the next morning, with the boats, to examine a supposed harbour, into which, in consequence of the light winds, the tender was unable to enter. The reef on the north side of Moala resembles that of Totoia, being a collection of sunken and detached patches. The reef on the north-east makes off to the distance of two and a half miles. After passing it, there is a deep indentation in the island, with a broad passage through the reef, leading to a safe and very fine harbour, and, what is unusual, the passage is suffi-

ciently wide for a vessel to beat out. This, however, would seldom be necessary, as there are several passages through the reef to the westward, which are safe with a leading wind.

This island affords wood, water, and some provisions, and has about seven hundred inhabitants.

Lieutenant Carr, finding that his time was almost expired, determined to proceed to Ovalau, by passing close to the Mothea Reef, off the southern point of Nairai. On the 25th, the tender anchored at Levuka. On receiving Lieutenant Carr's report, I immediately despatched him to survey the passage round the western side of Ovalau. The eastern portion, together with the harbour of Levuka, had already been completed by the Vincennes. Lieutenant Carr had, in the performance of this duty, reached the island of Moturiki, when the time allotted for the purpose had expired. He accordingly left the two boats under Lieutenant Underwood, to complete the remaining part of the work, which occupied them two days, during which time, it appears, from Passed-Midshipman May's account, they had another narrow escape from disaster, under the following circumstances. The night the boats left the tender, they imprudently landed on the island of Moturiki, where they unloaded their boats, allowing the natives to help them up, and then removed all the things out of them up to the mbure, although there was reason to apprehend, from their conduct, that mischief was meditated. They deemed it necessary to have sentinels posted, and all the men remained with their arms by their side. The natives before ten o'clock had dispersed, except ten or fifteen, who were seemingly on the watch. These were discovered passing in some clubs, which were secretly laid by a log. Lieutenant Underwood then determined to compel them all to quit the house, which they did, going out in rather a sulky manner. The moment the tide floated the boats, it was thought necessary to load them and shove off. They then anchored, and passed the remainder of the night in them. The next night, for greater safety, they sought shelter from the rain and wet under the rocks, which caused them much difficulty in lighting their fires. This was not overcome until their old native guide took the tinder, and ascending a tall cocoa-nut tree to the fronds, quickly returned with a blazing torch. Having finished the survey of that part of the Moturiki Passage assigned them, they returned to the ship at Levuka.

The island of Moturiki is almost in contact with that of Ovalau to the south of it. The same reef extends around both of them, and there is no passage between them, except for boats and canoes. A large square castellated rock lies midway between them, called Laudolib, of which there is a tradition, that Ndengei was bringing it to block up the big passage of Moturiki, which, according to the natives, leads to his dominions, but being overtaken by daylight, he dropped it where it now lies.

Moturiki is three miles long, and one broad; it is not so much broken as Ovalau, though it rises in its centre, forming a high ridge. There are two small islands, named Leluvia and Thangala, to the south of it, and between these and Moturiki is the entrance to the bay of Ambau, termed the Moturiki Passage: this is about two miles long, and is a mile in width towards its eastern end; the tide

flows strongly through it, and the flood sets to the westward.

The tender having returned to Ovalau, I made preparations to leave that place.

Not being able to spare the services of Lieutenant Carr as first lieutenant, I transferred him to the Vincennes, and ordered Lieutenant Case to the tender. Lieutenant Carr was put in charge of the observatory, while Lieutenant Alden in the launch, and Mr. Knox in the first cutter, were relieved by Lieutenant Perry and Mr. De Haven. Both boats received new crews, and proceeded to survey the reefs by Passage Island, and thence to Vanua-levu. I embarked in the tender on the 3rd of June, and by night anchored off Mbua or Sandalwood Bay, where I had appointed to meet the Peacock. We burnt blue-lights and sent off rockets, but received no answer, and in the morning found the ship had not arrived.

Levuka was reached at 2 A.M.; here I found H.B.M. schooner Starling, Lieutenant Kellet, consort of the Sulphur, Captain Belcher, on a similar duty with ourselves. Lieutenant Kellet informed me that the Sulphur, in going into Rewa, had struck on some coral lumps in the north passage, and lost her rudder; and the object of Lieutenant Kellet's visit was to obtain aid, or new planks for that ship. As those of the Vincennes were thought to be too large, I at once ordered a boat to be manned, and sent under charge of Lieutenant Underwood to Mbua Bay (seventy miles), to the Peacock, for the purpose of obtaining those belonging to that ship. It afforded me great pleasure to be of service to any of Her Majesty's ships, and knowing how important it was to have prompt and efficient aid, there was no delay. I had the pleasure of a few hours' conversation with Lieutenant Kellet, but as my appointment with the Porpoise rendered it necessary that I should meet her at the town of Somu-somu, on the island of Vuna, I was soon obliged to leave Levuka for the eastern part of the group. In the mean time, I obtained my return meridian distances and the night observations.

Before I left Levuka, Seru, Tanoa's eldest son, paid us another visit, and brought some hogs and other provisions, as a present. On this occasion, his conduct towards Mr. Vanderford was not what it should have been, for he appropriated some of that officer's property to himself. I regret I did not learn this until some time afterwards, for I had no opportunity of speaking to Seru again; but I sent him word that his conduct was not approved of, and he must not take such a liberty again.

Orders were left with Lieutenant Carr to despatch Lieutenant Underwood and Passed-Midshipman Sandford, with two boats, to survey the islands of Ambatiki, Nairai, and Angau, all of which are in sight from Ovalau.

At five o'clock the next morning we were under way, in the tender, with two boats of the Vincennes in company, and crossed over to Wakaia, where I left Passed-Midshipmen Knox and May to survey that island and Mokungai, with their reefs. Here I fixed a station, and observed, with the theodolite, on the distant signals. I then made an endeavour to get out of the reef, but the weather looking bad, I put back and anchored in a snug bay, which I had called Flying-Fish Harbour. This is on the west side of the island of Wakaia, and has two passages through the reef to it.

The next morning we again got under way, and stood for Nemena, or Direction Island, where we anchored, after passing through a narrow passage in its outlying reef. Direction Island forms two high regular hills, covered with a dense foliage. It is not inhabited, being only occasionally resorted to for turtles by the natives.

On the 7th, we were engaged in the survey of the island and reef, with the boats, while I fixed a station on its western summit, where I passed the day observing for longitude and latitude and angles, on all the points, peaks, and signals, in sight.

In the evening, we sailed for Vuna Island. The wind was very light, and we did not make much progress, but spent the greatest part of the next day in getting up with the island. Not wishing to be detained, I took my gig and pulled for Somu-somu.

Somu-somu, although one of the chief towns of Feejee, acknowledges a sort of subjection to Ambau. The cause of this is found in an ancient tradition of a contest between their respective tutelar spirits, in which the spirit of Somu-somu was overcome, and compelled to perform the tama or salute due to a superior, to the god of Ambau.

The town of Somu-somu contains about two hundred houses, which are more straggling than any I had yet seen. It is partly built below a bluff, which affords a very safe retreat and strong defence to its inhabitants, and is divided, therefore, into a lower and upper town. The old mbure near the missionaries' house is nearly gone to decay. Here was found the only carved image I saw in the group; it was a small figure cut out of solid wood, and the missionaries did not seem to think that it was regarded by the people with any reverence. The priest appears to have taken up his abode with the old king, and was apparently held in great reverence.

The town is situated on the north-west side of the island of Vuna, which is separated from the island of Vanua-levu, or the large land, by a strait five miles wide in its narrowest part, which I have called the Strait of Somu-somu. The island of Vuna rises gradually to a central ridge, the height of which, by several measurements, was found to be two thousand and fifty-two feet. The summit is generally covered with clouds. From its gradual rise, and its surface being smoother, it is susceptible of a much higher state of cultivation than the other islands; the soil is a rich reddish loam, and it appears to be considered as the most fruitful of the islands. At the same time, its inhabitants are acknowledged by all to be the most savage. Cannibalism prevails here to a greater extent than any where else.

The length of Vuna is twenty-five miles, and its breadth five miles. Although there is a navigable passage between Vuna and Corolib, yet it is made somewhat intricate by sunken coral knolls and banks of sand. These shoals extend two miles beyond the island, into the strait. The tides are strong, but set through the strait. Calms and light winds prevail, in consequence of its being under the lee of the high land of Vuna, which makes the passage through it tedious and uncertain.

Corolib, or Goat Island, I made one of my stations, as it commanded most of those we had been at; and I obtained the necessary observations to secure its position.

I dined and spent the afternoon with the missionaries and their ladies, and heard a recital of some of the trials they have been subjected to. I cannot but feel astonished that they can endure to live among such a horde of savages. Their house is a tolerably comfortable one, and they have a few Tongese around them as servants, some of whom are converted; but all the rest of the inhabitants are cannibals. Mr. Hunt was kind enough to give me an account of some of the scenes they had to witness, which will convey an idea of what their situation is, and what they have had to undergo.

Mr. and Mrs. Hunt, and Mr. and Mrs. Lythe, arrived at Somu-somu in August, 1839, and consequently at the time of our visit they had been there nearly a year.

On the 11th of February, 1840, one of their servants informed them that the king had sent for two dead men from Lauthala, a town or koro not far from Somu-somu. On inquiring the reason, he knew of none but that the king was angry; this was sufficient to know, and in some degree prepared them for what they shortly afterwards had to witness. They now found that their servant was only partly informed, for, instead of two men, they soon observed eleven brought in, and knew that a feast was to take place. Messrs. Hunt and Lythe went to the old king, to urge him to desist from so barbarous and horrid a repast, and warned him that the time would come when he would be punished for it. The king referred him to his son, but the savage propensities of the latter rendered it impossible to turn him from his barbarous purposes.

On the day of the feast the shutters of their house were closed, in order to keep out the disgusting smell that would ensue, but Mr. Hunt took his station just within his fence, and witnessed the whole that follows. The victims were dragged along the ground with ropes around their necks, by these merciless cannibals, and laid, as a present to the king, in the front of the missionaries' house, which is directly opposite the king's square, or public place of the town. The cause of the massacre was, that the people of Lauthala had killed a man belonging to the king's koro, who was doing some business for the king; and, notwithstanding the people of Lauthala are related to the king, it was considered an unpardonable offence, and an order was given to attack their town. The party that went for this purpose came upon the unsuspecting village when (according to themselves) they were neither prepared for defence nor flight, or, as they described it to Mr. Hunt, "at the time the cock crows, they open their eyes and raise their heads from sleep, they rushed in upon them, and clubbed them to death," without any regard to rank, age, or sex. All shared the same fate, whether innocent or guilty. A large number were eaten on the spot. No report makes this less than thirty, but others speak of as many as three hundred. Of these it is not my intention to speak, but only of what was done with the eleven presented to the king and spirit.

The utmost order was preserved on this occasion, as at their other feasts, the people approaching the residence of the king with every mark of respect and reverence, at the beat of the drum. When human bodies are to be shared, the king himself makes a speech, as he did on this occasion.

In it he presented the dead to his son, and intimated that the gods of Feejee should be propitiated, that they might have rain, &c. The son then rose and publicly accepted the gift, after which the herald pronounced aloud the names of the chiefs who were to have the bodies. The different chiefs take the bodies allotted to them away to their mbures, there to be devoured.

The chief of Lauthala was given to their principal god, whose temple is near the missionaries' house. He was cut up and cooked two or three yards from their fence, and Mr. Hunt stood in his yard and saw the operation. He was much struck with the skill and despatch with which these practised cannibals performed their work. While it was going on, the old priest was sitting in the door of his temple giving orders, and anxiously looking for his share. All this, Mr. Hunt said, was done with the most perfect insensibility. He could not perceive the least sign of revenge on the part of those who ate them, and only one body was given to the injured party. Some of those who joined in the feast acknowledged that the people of Lauthala were their relations, and he fully believes that they cooked and ate them, because they were commanded to do so. The coolness, Mr. Hunt further remarked, with which all this was done, proved to him that there was a total want of feeling and natural affection among them.

After all the parts but the head had been consumed, and the feast was ended, the king's son knocked at the missionaries' door, (which was opened by Mr. Hunt,) and demanded why their windows were closed? Mr. Hunt told him to keep out the sight as well as the smell of the bodies that were cooking. The savage instantly rejoined, in the presence of the missionaries' wives, that if it happened again, he would knock them on the head and eat them.

The missionaries were of opinion, that after these feasts, the chiefs become more ferocious, and are often very troublesome. In the present case, they attempted to bring accusations against the missionaries, that they might have a pretext for plundering them, but the only fault they could find to complain of was, that they did not receive presents. The missionaries' conduct was firm and decided, telling them if they desired the property, they must take it by force. This the natives seemed afraid to do, and after they were fully convinced they could not intimidate them, showed a desire to become friends. The missionaries then took them a present, which they were glad to accept, and gave one in return, as a make-peace, since which time they have lived in peace.

On the afternoon of the 9th, the Porpoise joined me here, agreeably to appointment.

On the 10th, I endeavoured to get the chiefs on board the Porpoise to sign the treaty, or regulations, which the chiefs of Ambau and Rewa had done. For this purpose I gave them an invitation to come on board; but no inducement could persuade them to place themselves in our power, for fear of a like detention with Vendovi. Finding that they were determined to persist in their refusal to come on board, I asked that a council of chiefs should be held on shore. To this the king agreed, and issued his orders for the meeting. It took place in his house, which is built much after the fashion of an mbure, though of larger dimensions;

it had four apertures for doors; the fire-place was in one corner, and part of the house was curtained off with tapa. A large number of junk-bottles were hung from a beam, both for use and to display his wealth, for they are very much valued. The king also possessed a chair, two chests, and several muskets. The former he seemed to take much pleasure in sitting in, having discovered, as he told the interpreter, that they were very comfortable for an old man. We had a full meeting, and I was much struck with the number of fine-looking men who were present. Their complexions were dark, and they resembled one another more than any collection of natives I had before seen in the group.

The two sons of the king were present. Tui Illa-illa, who is the actual king, is held much in awe by the people. The regulations, after a full explanation of their objects, were signed, or rather they made their mark, for the first time, on paper. The old king has always been friendly to the whites, but his son is considered quite unfriendly towards them; and it is thought, by the missionaries, that were it not for the old man, and the fear of punishment by a man-of-war, they would not be safe.

Messrs. Hunt and Lythe acted as interpreters on this occasion, but not until after the one I had chosen was unable to make them understand. This was intentional on my part, for I did not wish the king and natives to think that the missionaries had had any part in the proceeding; and they did not undertake the office until the king and chiefs desired their assistance. Besides the signing, we had the clapping of hands and thighs, and the three audible *grunts* of satisfaction from the audience. The meeting broke up with a distribution of presents, and all, I believe, went away satisfied.

The ceremony attending the ava drinking of the king, at Somu-somu, is peculiar. Early in the morning, the first thing heard is the king's herald, or orator, crying out, in front of his house, "Yango-na ei ava," somewhat like a muezzin in Turkey, though not from the housetop. To this the people answer, from all parts of the koro, "mana" (prepare ava). The principal men and chiefs immediately assemble together from all quarters, bringing their ava-bowl and ava-root to the mbure, where they seat themselves to talanoa, or to converse on the affairs of the day, while the younger proceed to prepare the ava. Those who prepare the ava are required to have clean and undecayed teeth, and are not allowed to swallow any of the juice, on pain of punishment. As soon as the ava-root is chewed, it is thrown into the ava-bowl, where water is poured on it with great formality. The king's herald, with a peculiar drawling whine, then cries, "Sevu-rui-a-na" (make the offering). After this, a considerable time is spent in straining the ava through cocoa-nut husks; and when this is done, the herald repeats, with still more ceremony, his command, "Sevu-rui-a-na." When he has chanted it several times, the other chiefs join him, and they all sing, "Mana endina sendina le." A person is then commanded to get up and take the king his ava, after which the singing again goes on. The orator then invokes their principal god, Tava-Sava, and they repeat the names of their departed friends, asking them to watch over and

be gracious to them. They then pray for rain, for the life of the king, the arrival of wangara Papa-langi (foreign ships), that they may have riches and live to enjoy them. This prayer is followed by a most earnest response, "Mana endina" (amen, amen). They then repeat several times, "Mana endina sendina le." Every time this is repeated they raise their voices, until they reach the highest pitch, and conclude with "O-ya-ye," which they utter in a tone resembling a horrid scream. This screech goes the rounds, being repeated by all the people of the koro, until it reaches its farthest limits, and, when it ceases, the king drinks his ava. All the chiefs clap their hands, with great regularity, while he is drinking, and, after he has finished his ava, the chiefs drink theirs, without any more ceremony. The business of the day is then begun. The people never do any thing in the morning before the king has drunk his ava. Even a foreigner will not venture to work or make a noise before that ceremony is over, or during the preparation of it, if he wishes to be on good terms with the king and people.

The tender having returned with the boats of the Porpoise from surveying the straits opposite Goat Island, we received on board Tubou Totai and Corodowdow, together with their suites; and I was happy to be able to give the Rev. Mr. Hunt a passage to Rewa, whither I intended proceeding on my return to Levuka. Mr. Hunt was going for the purpose of offering to take the charge of the children of the Rev. Mr. Cargill, who had met with the melancholy loss of his wife shortly after the Peacock had left Rewa. From this gentleman I obtained much information, and found that he confirmed a great deal of that which I have already given. He was obliging enough to act as my interpreter on many occasions afterwards.

The Porpoise parted company with the Vincennes on the 8th May, off the island of Fulanga. From this time, until June 9th, when I met her at Somu-somu, Lieutenant-Commandant Ringgold had been engaged in the survey of the eastern islands of the group. It is now time that I should revert to the operations in which he had been engaged.

The survey under Lieutenant-Commandant Ringgold was begun at the south-east island, called Ongea. There are, in fact, two islands inclosed in the same reef, called Ongea-levu and Ongea-riki. A good entrance was found on the north-west side of the reef, and a harbour, to which the name of Port Refuge was given; but there is little or no inducement to enter it, for the islands are barren, and no water is to be found. A few wretched inhabitants are on them.

Three miles to the southward and eastward of Ongea is a dangerous reef and sand-bank, called Nugu Ongea.

Fulanga was the next examined. This is a fine island, surrounded by the usual coral reef, which has an entrance through it on the north-east side (suitable for small vessels), that expands into a large basin, with many islets and reefs, where large quantities of biche-de-mar have been gathered. The boats circumnavigated this island, and their crews were on shore all night, in consequence of having been obliged to return to the place where they first began their work, and of there being no possibility of passing over the reef

to enable them to join the brig before the night closed in. They were kindly treated.

During the night a heavy squall was experienced from the north-north-west, with vivid lightning and rain; but the following day proved fine. In the morning the boats rejoined the brig, and brought off a native who gave his name as Tiana, and through Jim, the interpreter, they gathered the information that the island is subject to Tui Neau, king of Lakemba. He also gave the names of all the islands in sight. He knew our flag, and spoke of vessels often visiting this island.

The boats left the brig in the afternoon, under the pilotage of Tiana, finished the survey of the island, and made the west bluff of Fulanga, by triangulation, one hundred and fifty feet high. They then returned, bringing on board a chief of the island, whose name was Soangi, and the native missionary from Tonga, called Toia. Neither of them had any covering but the maro. They remained on board all night.

This island is one of those on which fine timber grows, and is, therefore, resorted to by the Vavao and Friendly islanders for building canoes. Three of these were seen in the process of construction, under a long shed, one of which, on measurement, was found to be one hundred and two feet long, seven feet wide, and five feet deep, of a beautiful model; the other two were somewhat smaller. The builders said that they were constructing them for a Vavao chief, called Salomon, for the Tonga war. The work was performed under a contract, and the price agreed on was to be paid in whales' teeth, axes, guns, &c. Salomon was at the village, and went off with Lieutenant-Commandant Ringgold to the brig, for the purpose of accompanying him to the other islands. He was a remarkably handsome man, and resembled the Tonga chiefs more than the other Feejees.

Leaving Fulanga Lieutenant-Commandant Ringgold bore away for Kambara, having first surveyed the small island of Moramba, which is half a mile in diameter. It is well wooded, and is surrounded by a reef, but offers no facilities to vessels.

Enkaba, which is two miles long by one wide, is inhabited, well wooded, and has a breach in the reef, but no harbour.

Kambara was the next island in course. It is of a rectangular form, is about three miles and a half long and two wide, and is the westernmost of what I have termed the Eastern Group. It is fertile and well wooded; its timber is esteemed above that of all the other islands of the group for canoe-building; and cocoa-nut groves abound along its shores. The island is not entirely surrounded by the reef, which is wanting on the north-west side. On examination it proved to have no anchorage for large vessels, but small ones and boats may find protection. This island may be known by a remarkable bell-shaped peak on its north-west side, which is a good landmark. It is covered with rich verdure, and was found to be three hundred and fifty feet high.

Tabanaileli is a small uninhabited island on the western side of Kambara.

Nanuka, which was the next to claim attention, has a very extensive reef surrounding it, and offers no anchorage. There are but few natives upon it.

Angasa and three smaller islands are enclosed in one extensive reef, along with several small uninhabited islets. Angasa is the largest and most eastern of them. It is easily distinguished, and is remarkable for long regular ridges, that extend through the centre, and appear as though they had been artificially formed.

Ularua is a small desolate island encompassed by an extensive reef.

To the north of these were found two small islands, Komo-levu and Komo-riki, enclosed in the same reef, through which there is a passage on the north-east side. Good anchorage was found here, except in north-east winds.

Motha lies to the eastward of Komo. It is one of the most picturesque islands in the group, with an undulating surface; its hills were more free of wood than those they had before surveyed; it is about two miles in diameter, and is surrounded by an extensive reef, through which there is only a boat-entrance on the north shore. Karoni, which is of small size, lies within the same reef, towards its southern end. Motha forms the southern side of what I have called the Oneata Channel; it is a good landmark to run for in making the group, being high and surrounded with sloping sides. Its soil is rich. Its population consists of a few natives. There are three detached reefs to the eastward, and within a few miles of it.

Oneata lies north of Motha, and forms the northern side of the Oneata Channel. It is of good height, and may readily be known by Observatory Isle to the north-east, two hundred and fifty feet in height, with three lofty trees on its apex. The reef around Oneata is also extensive; it has two good entrances on the north-east side, and three on the west.

Not being able to pass through the reef of Oneata, Lieutenant-Commandant Ringgold bore away to the north-west for Lakemba, which is twelve miles distant. At nine o'clock on the 15th the Porpoise was off its south side, and as the boats were preparing to land, a canoe was seen leaving the beach, having on board the missionary, the Reverend Mr. Calvert, belonging to the Wesleyan Society. He had been on the island more than a year, and succeeded the Rev. Messrs. Cargill, Cross, and Jagger, who had removed to the larger and more important islands of the group. Lieutenant-Commandant Ringgold and some of the officers returned with him to the island, where they were kindly entertained by him and his lady. Mr. Calvert did not express himself favourably regarding the natives, describing them as cruel and blood-thirsty, and said it was the prevailing custom to destroy all shipwrecked persons. Cannibalism, however, is now extinct on this island.

The king of Lakemba, Tui Neau, was found seated in a large canoe-house, near the landing, with a numerous retinue of almost naked natives about him. He is a corpulent, nasty-looking fellow, and has the unmitigated habits of a savage. He is said to have one hundred wives! He exercises despotic power over all the surrounding islands, has the character of being a cruel tyrant, and lives in the midst of all kinds of excesses. The settlement is dirty and badly built, but has some large houses.

Mr. Calvert was landed in the evening, and the next morning, the 16th, the brig resumed the sur-

vveying duties, the islands of Komo, Ularua, and the Aivas, (both the high and low,) Oneata, and Motha, all in the neighbourhood of Lakemba, were observed on and explored.

At night there was a violent squall, accompanied with lightning and rain. Among these islands and numerous reefs, such squalls become very dangerous, but fortunately they are not of long duration.

The two Aivas are both uninhabited; they lie between Lakemba and Oneata, and are surrounded by an extensive reef, with the exception of a large opening in the north-east side, which affords anchorage, exposed, however, to the north-east winds.

On the 17th they were engaged in exploring the great Argo Reef. Its native name is Bocatatanoa, and it is one of the most extensive and dangerous in the group. Its English name is derived from the loss (on its south-east end) of the English brig Argo, which happened in the year 1806.

The outlying reefs off Angasa and Motha, were also examined and surveyed. Lieutenant-Commandant Ringgold then proceeded towards Oneata. Here they found excellent anchorage, under Observatory Isle, near a settlement on the north-east side of the island. A second anchorage is to be found off the west side of the island, near a large sandy bay. No water is to be had here, except from wells, but there is abundance of fruit, vegetables, and poultry. The population is two hundred. Two Tahitian missionaries were found here, and about one-half of the people are Christians.

The Tahitian missionaries prepossessed all in their favour by their quiet and orderly behaviour. They have many recommendations from the former visitors to the island. They have been on Oneata upwards of twenty years, having been placed there, as they said, by Mr. Williams, who was the pioneer for so many years in the missionary field, in which service he lost his valuable life.

Observatory Island was made one of the magnetic stations, and Lieutenant-Commandant Ringgold also obtained there a full set of observations for latitude and azimuth, sights for chronometers, and a round of angles on all the islands and reefs in sight. The weather being unfavourable, they did not succeed in finishing the survey of Oneata and its reefs until the 23d. Tiana, the pilot whom they took on board at Fulanga, was here parted with. He had proved very serviceable, and possessed much knowledge of this part of the group. Lieutenant-Commandant Ringgold gave him his discharge with many presents, and a certificate of his good conduct and abilities as a pilot.

The officers frequently visited the shore. The natives seemed to vie with each other as to who should appear most in the European garb. The native missionaries, and some others, wore ruffled shirts marked P. Dillon. These, with a straw hat, constituted their only clothing, except the maro.

The southern side of Oneata is a mass of lava, somewhat resembling the clinkers of the Sandwich Islands. This rock is comparatively recent, having undergone but a slight decomposition. Deep chasms were occasionally met with. The whole is partially covered with vines and creepers, and the shore was lined with mangroves.

On the 22d, they sailed, and continued the surveys to the eastward, towards the Bocatatanoa, or Argo Reef. Besides the brig Argo, another vessel, by the name of the Harriet, is said to have been lost here. According to Thaki's report, all hands from one of these vessels were killed, while only a few from the other escaped. He remembers the occurrence, but it was a long time ago. This extensive reef was examined, when Lieutenant-Commandant Ringgold, having heard of the arrival of the Flying-Fish, with a pilot and despatches, returned to Lakemba.

It is remarkable that, up to this time, in all their trials of the current, they had found it setting to the eastward about half a mile per hour, varying in direction from east-north-east to east-south-east. This fact is confirmed by the information obtained from the natives, that canoes which are wrecked to the westward are always drifted upon these islands.

On the 28th, Mr. Totten and Dr. Holmes were despatched on shore, to ascend Kendi-kendi, the highest peak of the island of Lakemba, for the purpose of making observations and getting its height by sympiesometer. The altitude was thus found to be seven hundred and fourteen feet. The ascent was not difficult, for a regular path led to the highest point. The ruins of a town were found on it, called Tumboa, from which the Tonga chiefs of the family of Tubou Totai are supposed to have derived their name.

Mr. Calvert and his lady received them most kindly at the mission, as they had already done the other officers. The house and out-buildings are comfortable, and the church, which stands near the mission-house, is a good building, eighty feet long by thirty-two wide, and twenty-five feet high. The latter is convenient and appropriate to its purpose, and its floor is covered with mats. At 4 P.M. the hollow log drum was beaten for prayers, which the officers attended with Mr. Calvert. There were only fifteen persons present. A Tonga man officiated, as Mr. Calvert was fatigued with his morning jaunt; and the services consisted of singing and prayer. There are about fifty resident Christians, nearly all of whom are Tongese, of whom about one-third of the population is composed; and they have literally taken possession of the island, for they never work, but subsist on the labour of the Feejee population, who hold them in much awe. The difference between the two races was as striking here as at Ovalau. Heathenism is fast passing away at Lakemba, and its absurd rites are held in ridicule by most of those who are still considered as heathens. The influence of the priest is diminished, and the temple or mbure has fallen into decay.

Lakemba is the largest island in the eastern group. It is five miles in diameter; its shape is nearly round, with an extensive encircling reef. There is an opening on its eastern side, sufficient for large vessels, but dangerous, from the number of coral patches which stud it. The town is on the south side, and contains about two-thirds of the population of the island (one thousand people).

The people of this island seemed to be far from healthy; pulmonary diseases were common, and often fatal, and an unsightly scrofulous affection appeared to be quite prevalent.

The survey of Lakemba gave its length five

miles east and west, by three north and south. The reef extends six miles from the island, in an east-north-east direction; in it there are two openings, one on the south-east side, and one opposite to the town on the south or south-west side. Into the latter a vessel of one or two hundred tons may enter; but after getting in, the space is very confined, and it would be necessary to moor head and stern.

This island is the principal location of the people I have heretofore described, under the name of Levukians, as the first settlers of Ambau. They live in a village which is denominated Levuka, and have the character, at Lakemba, of being a wandering, faithless tribe, addicted, occasionally, to piracy. This is not considered the case elsewhere, for the Feejee men, in general, look upon them as a useful class, and through them they carry on the trade between the different islands. It is not surprising that they should bear a bad name among the Tonga men, for I heard that they were the means of checking the depredations of those of that race who now hold possession of the island of Lakemba, and exert a great influence on the south-east islands of this group, which they find essential for their purposes of obtaining war-canoes.

Lakemba was found, like the rest of this group, to be of volcanic formation. The soil is similar to that of Vanua, composed of a dark red loam. The island, in point of fertility, will compare with any of the others, and exceeds all those of the south-east in size and productiveness. It has rich valleys, or rather ravines, gradually rising and contracting until they reach the hills. Extensive groves of cocoa-nuts cover its shores and low lands, and add much to its beauty.

The Porpoise, having taken Tubou Totai on board, proceeded to the island of Naiau. This is a high island, and rises in perpendicular cliffs from the sea to the height of two hundred and seventy-five feet. It has only a small reef attached to it on one side, the other side being free. It offers no facilities for the visit of vessels. Naiau contains a population of two hundred inhabitants, who are perched upon inaccessible peaks, in order to protect themselves from depredations.

Tabutha is thirty miles north of Lakemba. It has a remarkable peak, which rises on its north-west end, and is the Cap Island of the charts. A reef surrounds it, in which there are two boat-entrances on the south-west and north-west sides. There are on it about ninety inhabitants: it has no water except from wells. Tubou Totai says that this island belongs to him, he having received it as a present from the king of Lakemba. There are two small reefs, called Mamouko, to the south-west of it, which can be closely approached, and have a passage between them. They are three miles from the island, south-south-west (true).

To the eastward of Tabutha lies the small island of Aro. This is a very pretty island, and has three reefs in its neighbourhood,—one lying north-east seven miles; another, east-half-south two and a half miles; the third, south-half-east two and a half miles. This small island is only inhabited during the turtle season, which begins in October and ends in February.

Chichia lies twenty miles to the north-west of Naiau. It is nearly circular, is three miles in

diameter, and a shore-reef extends around it, with no opening but for canoes. Some of its points are three hundred feet high. It is in places thickly wooded, and has about three hundred inhabitants. There is a small reef to the south-west, with a passage between it and the island. The soil is rich, and every thing is produced in abundance. Extensive cocoa-nut groves clothe its low points.

Mango is another small island, eighteen miles to the north-north-east of Chichia. It is remarkable for an open space near its centre, which appears as if it had been artificially cleared. It is surrounded by a reef, which has a break on the north-west side, but affords no protection for vessels. The southern part of the reef extends off about a mile, and has two small islets in it. It affords no shelter, and there is no water except from wells. Its shape is an oval, whose longest diameter is three miles, and its shortest two. There is a distinct reef, which lies north-west-by-north, four miles from it.

Vekai, Katafanga, and the reef of Malevuvu, all three lying north of Tabutha, were next examined.

Vekai is six miles from Tabutha. It is a low islet, with an extensive reef lying on its north-west side, and is resorted to during the turtle season.

Katafanga is also a small isle, inhabited only during the turtle season. Its reef is much more extensive, being four and a half miles from east to west, and has a small opening, which would admit a vessel drawing ten feet of water, were it not impeded by some dangerous coral knolls. There are huts on its north-east point; and abundance of sugar-cane, fruit, and vegetables, may be procured. Both the last-named islands are volcanic, and specimens of lava were obtained from them. The latter island is one hundred and fifty feet in height.

The reef of Malevuvu is two and a half miles long, and is awash, with the sea breaking over it. It is seven miles north-by-east from Katafanga. Lieutenant-Commandant Ringgold having understood from Tubou that the reef around Munia enclosed, besides that island, six others, and that there was a wide and safe passage through the reef, determined, on coming up with it, to enter, which he did on its south-east side. The islands, seven in number, were all of considerable size: Vanua-valavo, the largest of them, proved to be of a serpentine shape, and fourteen miles in length; each island had its separate reef around its shore, and the whole were enclosed by a very extensive reef, somewhat of the shape of a triangle, whose sides are twenty-four miles in length. The large island is in no place more than two miles wide; it is situated along the western side of the triangle, and contains many fine bays and safe anchorages. The other islands are called Munia, Susui, Malatta, Ticumbia, and Osubu. Lieutenant-Commandant Ringgold gave to the cluster the name of the Exploring Isles.

Boats were dropped to survey the entrance, whilst the brig proceeded to her first anchorage under the island of Munia, to which the name of Discovery Harbour was given. This anchorage was a good one, in eight and a half fathoms water, with fine sandy bottom.

The chief of this island had but one eye. He appeared somewhat under the influence of fear,

but made some presents of bananas and cocoa-nuts, and complained much of his poverty.

The next day the boats were prepared for surveying. The launch and another boat, under Lieutenants Johnson and Maury, were sent to circumnavigate the large island. Parties were also despatched to get wood and water. Mr. Totten and Dr. Holmes ascended the highest peak of Munia, called Telanicolo, the measurement of which, by sympiesometer, gave one thousand and fifty-four feet above the level of the sea. This peak is composed of volcanic masses, with high, craggy, and overhanging cliffs. The ascent proved difficult, for the path passed over steep hills and along the edges of the rocks, and it was in places so narrow that only one person could pass at a time. A few men might defend the ascent against an army. Upon the summit they found the ruins of a small village; some of the huts were, however, kept in repair, as refuge in times of danger. The view from the top they describe as beautiful, many of the other islands being in sight. The natives who accompanied them, to carry the instruments, &c., behaved well, and were amply rewarded. All the natives yet seen by the Porpoise were exceedingly fond of tobacco, a very small piece of which is an ample reward for a long service. Some thefts were committed from the boats by the natives who assisted in bringing the water, but on speaking to the chief they were quickly returned. He at the same time pointed out the thieves, and requested they might be killed.

The island of Munia contains about eighty inhabitants, and the settlement is on the western side, where water may be obtained in small quantities.

Ticumbia lies five miles to the north-east of Munia. It bears a close resemblance to Munia, but is much smaller; the inhabitants are about seventy in number. This island affords but little water.

Susui lies next to Vanua-valavo, and between it and Munia. It is divided into three parts, of which the easternmost is low, and covered with thick shrubbery and groves of cocoa-nuts; the western portion rises in broken basaltic peaks, several hundred feet high, and is thickly wooded. On this island are several villages, and the number of inhabitants is one hundred and fifty. The ground is much better cultivated than is usual, the patches of taro and yams being kept remarkably neat. Good water may be obtained on the north-west side, running from the cliff. On the north-west side, Lieutenant-Commandant Ringgold discovered a beautiful harbour, secure from all winds, whence an extensive valley runs back, thickly covered with bananas, cocoa-nuts, &c., with a small stream running through it.

Malatta is the next island. It lies near Susui, and is of smaller size than it. It is divided from Vanua-valavo by a narrow passage. The southern part of the latter island is called Lomo-lomo; its northern is called Ava; it has a good harbour on its east side, opposite Susui, protected by a small islet. On the west side of the island are two openings in the reef, a spacious harbour, and large stream of water. The population of Vanua-valavo is five hundred. There is a large village at the head of the bay.

Avia is a small island to the north-east of Vanua-valavo. It has a few natives residing upon it.

On the southern side of the great reef, are two small uninhabited islands.

These exploring islands are well situated for the resort of vessels. The anchorages are very safe and easily reached. They afford an abundance of fruit and vegetables. There are five openings in the large reef, two at the east end, two on the west, and one on the north side; all safe. Vessels wishing to anchor on the western side must enter one of the western passages, as the near approach of Vanua-valavo to the large reef does not admit of a passage for vessels between them.

On the 8th, the Porpoise sailed from the Exploring Isles, and continued the surveys of Okimbo and Naitamba, with the surrounding reefs, both attached and separate. The former is made up of three small isles, enclosed in the same reef, four miles east and west, by three miles north and south, which are seven miles to the north of the north-west point of Vanua-valavo. The detached reefs are from one to four miles in length; they are awash and dangerous. Okimbo is desolate, and affords nothing but turtles in the season, and some biche de mer.

Naitamba is high and rugged; it is of a circular form, one mile and a half in diameter. The reef does not extend beyond half a mile from it, and has no openings. It has few inhabitants.

The time having now arrived for our meeting at Somu-somu, Lieutenant-Commandant Ringgold bore up for that place, passing through Tasman's Straits, which lie between the islands of Kamia and Vuna. Both of these have many reefs projecting from their shores. This passage should not be attempted except in favourable weather, and the best time is during the morning hours, when the sun is to the eastward of the meridian. The currents are strong, and calms are very frequent under the highlands of Kamia and Lauthala. In passing through these straits, although they had a careful look-out at the mast-head they were close to a coral knoll before it was seen, and passed within a few feet of it. It had no more than eight feet of water on it. At noon they rounded the north point of Vuna, entering the Straits of Somu-somu, and at two o'clock p.m. they reached the anchorage off the town of Somu-somu.

Having finished all my business at Somu-somu on the 10th of June, at ten o'clock at night, I determined, notwithstanding the lateness of the hour, to get under way with the Flying-Fish, in order that I might take up the survey of the south side of Vanua-levu, beginning at Tokanova Point, early the next morning. We accordingly weighed anchor, and stood out of the Straits of Somu-somu.

In rounding Goat Island we did not give it a sufficient berth, and grounded on a sunken patch of coral, an accident which hurt the feelings of poor Tom the pilot more than it injured the tender. We remained on this shoal about an hour, and after getting off we drifted through the strait, and by daylight found ourselves in a position to begin the survey.

At an early hour, Lieutenant Case, Passed-Midshipman Harrison, and myself, took our boats and entered the reef. Mr. Sinclair was left in the tender, with orders to follow the reef close aboard, and directions to enter Fawn Harbour; but having in our progress along the reef discovered an opening, I made signal for the tender to enter. This

entrance appears to be unknown, and leads to a harbour which I called Baino, after a town that Tubou informed me was near by. It offers good anchorage, being protected by the coral reef, which extends off some distance. After the tender had fired guns for fixing our base line, a signal was made for her to get under way and proceed to Fawn Harbour four miles to leeward, and anchor at sunset. We joined her there, having brought up our work. This has been called Fawn Harbour after the name of an American brig, which was wrecked on the reef. In attempting to beat out, she missed stays and went ashore.

In the morning early we surveyed this small harbour; and the two chiefs having returned on board, we started on our surveys of the coast. The tender at the commencement gave us our base by sound, and we proceeded on our survey, leaving her to get under way, with orders to anchor at Savu-savu. We continued our work all day, and passed only one opening in the reef, which is near the small islet of Rativa, and offers little accommodation for any class of vessels.

In the afternoon I observed for chronometer sights on the small island of Rativa. Two miles beyond this, the reef joined the shore. Mr. Sinclair having conjectured that I had received erroneous information respecting the distance to Savu-savu, returned to this point to pick us up before dark, and finding an opening in the reef sufficient for small vessels, we took advantage of it to join the tender. I at first intended to anchor in this little harbour for the night; but when I reflected how necessary it was for me to return to Levuka, I determined, after getting on board, to take advantage of the strong breeze, and push direct for Ovoulau, and at ten o'clock the next morning anchored at Levuka, where I found all well.

The Starling had sailed for Rewa with the rudder-pintles of the Peacock, which Lieutenant Underwood had succeeded in getting; and having heard that Captain Belcher was still at Rewa, I determined to visit it, for the double purpose of seeing if we could afford him any further facility, and getting observations for latitude and meridian distance, as well as effecting a comparison with my intensity needles.

Having transferred Lieutenant Case to the Vincennes, Assistant-Surgeon Fox and Midshipman Henry joined the tender, and at noon we were again under way for Rewa, where we anchored at 9 p.m. I had the pleasure of finding Captain Belcher there. He was on the eve of sailing, having nearly completed the repairs of his ship, and was making his last series of observations.

The Starling had sailed for Mbenga a few days before, whither the Sulphur was to go to join her. Captain Belcher sailed the next evening; and the following day the tender was hauled in close to the beach of the island of Nukalau, in order to protect the spot where we were observing throughout the day, and guard against surprise upon us by the chiefs of Rewa, which place was but a few miles from us.

I was not a little amused at Captain Belcher's account of the effect of the regulations as operating upon his vessel. The chiefs required him to pay port-charges, and in default thereof refused to give him any supplies. In drawing up the Rules and Regulations for the trade, it had never oc-

curred to me to mention men-of-war as being free, feeling assured that they would all very readily give five times the amount of the articles required in presents. But it appears that Captain Belcher did not think proper to make the customary present, and the chiefs refused to allow any supplies to go to his vessel until he should comply with the rules. This incensed the captain, and caused him to take offence at the missionaries, who he supposed prevented the supplies from being sent. I well knew, however, that they were guiltless. He likewise broke out into strong invectives against the chiefs, declaring that it was impossible they could understand the rules, &c., although the whole proceeding showed they were not only conversant with their meaning, but also with the power they had in their hands of compelling the visitor to pay.

Nukalau is a low, sandy island, well covered with wood. On the eastern side it has an extensive coral reef; but the western is clear, and may be approached closely. There is a pool of water on the island, but no one could water a ship there without the risk of causing sickness on board.

In the morning, before daylight, we got under way, on our return to Ovalau. The day having proved calm, we were at sunset yet some distance from the island. I concluded, therefore, to lay under Ambatiki for the night, and by 10 A.M. on the 18th, we again anchored at Levuka.

Lieutenant Underwood and Passed-Midshipman Sandford I found had returned from the survey of the islands of Angau, Nairai, and Ambatiki, to the eastward of Ovalau. David Whippy, the Maticum Ambau, had been sent with them as an interpreter, and to hold proper authority over the natives.

The first island which had occupied their attention was Ambatiki. It is in shape nearly an equilateral triangle, surrounded by a reef, which offers no protection for vessels, and only passages for boats. The island is seven hundred and fifty feet high, of a dome shape, and contains five hundred inhabitants, all subject (or ygal) to Ambau. The people were civil, and gave them taro and yams in plenty, but would not part with any pigs. The reason given for this was, their fear of Tanooa. They live in villages, and seem thriving. The island has very little wood on it. The reefs extend one-third of a mile from its shore.

Nairai was the next island visited by them. They first anchored on the west end of the Onoruga Reef, that extends off from the middle of Nairai, five miles in a westerly direction. There is a passage between this and the Mothea, or Eliza Reef, stretching off from the island towards the south; and there are also a good passage and harbour between the reef and the island. The Cobu Rock is a good mark for the former passage, when it bears east. It lies a mile south of the south point of Nairai.

The boats anchored in the harbour of Venemole, which may be known by two small islets, joined to Nairai by the reef, which forms a protection against the north winds; and vessels of any draught of water may anchor here in fifteen fathoms, with good bottom, from a quarter to half a mile from the shore. Somewhat farther to the southward is a three-fathom bank, which is the only danger that exists inside the reef towards the Cobu Rock or south-west passage. About a mile to the north is

Venemole Bay. It is circular, with a narrow entrance, affording, seemingly, a good harbour; but, on examination, this entrance proved to be quite shallow. The bay had the appearance of having been an old crater; at low water, it may almost be said to become a lake. The officers were much struck with the beauty of the bay. It contains a village of the same name, and also another, called Talailai; but both are small. The natives were quite peaceable.

They anchored at night off the town of Toaloo, which lies in a bight at the north end of the island, and proved the largest town on the island. Here David Whippy, acting as the "Maticum Ambau," obtained for them all kinds of provisions, and, by his exertions all night in superintending the cooking, they were prevented from being delayed the next day. Whippy told me that this island held a medium between mbati and ygal to Ambau, being not exactly in that state of servitude that the last would imply, nor yet as free as the first.

Nairai is famous for its manufactures of mats, baskets, &c., a large trade in which is carried on throughout the group by exchanges.

The reef extends from the island four miles northward, and, where it ends, turns for a short distance to the westward. There are a few patches of rock on its western side, but none farther from it than half a mile. This is the reef on which the Flying-Fish struck on entering the group, and where she came near being lost. It does not join the island, but is connected with the Mothea, or Eliza Reef; and there is, between it and the island, a good ship channel, leading to the large bay of Corobamba. On the eastern side of this bay, there is safe anchorage, in thirteen fathoms water, with a white sandy bottom. The reef, extending as it does to the southward for a long distance, protects it from the sea in that direction. A broad passage leads from Corobamba to the southward, and then passes between Cobu and Nairai to the south-west pass through the reef. The only danger is a small coral patch, lying east-south-east, a mile from the south end of the island, and a mile north of Cobu Rock.

The town of Corobamba lies at the bottom of the bay, and is next in size to Toaloo. The Cobu Rock is a singular one. It is inaccessible on three sides, of volcanic formation, and is enclosed by the Mothea Reef, which here spreads to the width of about three miles, and extends four miles farther south, where it forms a rounded point. The eastern side is an unbroken reef, but the western is somewhat irregular and broken, with many openings for boats.

Lieutenant Underwood ascended the Cobu Rock, for the purpose of obtaining angles; and, after observing these with his instrument, turning to take the compass's bearing, discovered a remarkable effect of local attraction. So great was this, as to cause a deviation of thirteen and a quarter points; Nairai, which was directly to the north, bearing, by compass, south-east-by-south one quarter south, while, what was quite remarkable, at the foot of the rock, near the water, the same compass gave the bearing north, agreeing with that taken from the opposite bearing on Point Musilana.

They next fixed the southern point of Mothea Reef. This has obtained the name of the Eliza

Reef, from the loss of the brig of that name in 1809. On that occasion a large amount of dollars fell into the hands of the natives, who fished them up from the water. They were afterwards traded off to the whites, some of whom told me they yet occasionally saw a native wearing one as a kind of medal; but none fell under our notice. This accident brought the notorious rascal Charley Savage among them.

They now steered for the north-east point of Angau, whence the reef extends off one mile and a half, and has no deep water inside of it. It was, therefore, difficult to find a place where they could anchor the boats, but at last they found anchorage off the town of Vione, which is concealed from view by the mangrove bushes that line the shores of this island for several miles. Angau is much larger and higher than either Ambatiki or Nairai.

The reef continues round the east side, close to the island. There are several openings in it, but none that offer a fit place for a vessel to anchor. As the south side is approached, the reef extends off several miles, and the water upon it is so shoal that even the boats were forced to keep on the outside, and, for want of an opening, were obliged to anchor without the reef. In the morning they crossed the reef at high water, and soon got into deep water. The survey of the southern side proved there was safe anchorage, the holding-ground being good in twenty fathoms water in the bay, and opposite the town of Lakemba; but during a southerly blow, a vessel would be much exposed to the wind and sea. There are several openings and clear passages through the reef on the north-west side, and clear water round to the south, but the bights to the north are full of coral patches.

Having completed the surveys, agreeably to his instructions, Lieutenant Underwood returned by the way of Ambatiki, and reached Levuka after an absence of nine days. The men had been at their oars pulling almost constantly for the period of eight days, sleeping in the boats, and seldom allowed to land.

Mr. Knox and Colvocoreshis were sent with the tender to complete the surveys of Wakaia, Mokungai, and Mekundranga. All three contain few inhabitants, and have been the scene of the horrid tragedies often committed by the stronger on the weak tribes of this group. There is a remarkable shelf formed near the centre of the island of Wakaia, which goes by the name of the Chief's or Chieftain's Leap. Near this there is now a small town.

Mokungai fell under the displeasure of the Ambau chiefs, and the whole population was exterminated after a bloody battle on the beach of its little harbour. Some of the whites witnessed this transaction, and bear testimony to the bloody scene, and the cannibal feasting for days after, even on those bodies that were far gone to decay. They are both, as I have before said, under the rule of the chief of Levuka.

Wakaia now contains only about thirty inhabitants, whilst Mokungai has only one or two families.

These islands are in sight from Ovalau, from which they are separated by a strait of ten miles in width. Although several miles apart, they are situated within the same reef. There are several

openings leading through the reef near Wakaia, on its eastern side, but they cannot be recommended except for small vessels. I passed through one of them, but found it much blocked up with coral knolls. The entrance on the south-west side, leading to Flying-Fish Harbour, is quite narrow. On the west side of Mokungai there is also a small harbour, formed partly by reefs and partly by the little island of Mekundranga.

Finding, on examination, that there was a reef that had not been surveyed, orders were sent for the tender to return to Levuka, which she did on the following day, and on the next I sent her, with Lieutenant Underwood, to examine the reef off Angau. This reef is called Mumbolithe, and is situated fourteen miles to the south of Lobo Hill, the south-east point of Angau; it is oval in shape, and three-fourths of a mile in length; the sea breaks on it at all times.

In returning from this service, when off Nairai, they had a narrow escape from shipwreck, being nearly on the reef, in a dark night, before it was discovered. Any other vessel of the squadron but the Flying-Fish would probably have been lost; but her admirable qualities were well proved in the exploration of this dangerous and unknown group.

On the 27th, the instruments were all embarked, and the return of the tender enabled me to put to sea in the Vincennes on the 28th of June. Intending to visit the hot springs of Savu-savu on Vanua-levu, we left Levuka in the morning, and stood over towards the end of the Wakaia Reef, with the view of passing round it. It being Sunday, the Rev. Mr. Hunt, who was a passenger on board with me, volunteered to officiate for us, which was gladly accepted. After service, I found the wind would not permit my weathering the point of the reef; so I bore up to pass through the Mokungai Passage, with a strong breeze. After getting through (which we had some difficulty in doing, in consequence of the strong ebb tide setting to the southward and westward), I stood on towards Direction or Nemena Island, intending, as the wind was becoming light, to enter through the narrow passage in the reef, and anchor under it, rather than remain surrounded by reefs during the night.

The next day completed my observations, and finished the survey of Nemena, or Direction Isle. In the afternoon we got under way, and stood over to the northward for Savu-savu on the island of Vanua-levu. The wind was quite light when we passed out of the reef, on the opposite side to that where we had entered it. I had previously sent two boats to examine the passage, and anchor in the deepest water. We approached the passage with a light air, having all sail set, but had very little headway. The water was perfectly clear, and the rocks, and fish, with the bottom and keel of the ship, were plainly visible. When we got in the passage, the officer in the boat told me that the keel looked as if it was in contact with the coral; the lead, however, gave three fathoms, one and a half feet to spare. It was a little exciting for twenty minutes, but we did not touch. If we had, the ship, in all probability, would have been a wreck; for as the tide was falling, she would have hung on the coral shelf, and been but partly supported by it. This is the great danger attendant on the navigation of this group, as indeed of all coral islands.

We were becalmed during the whole night; and the next morning, finding the calm still continued, I took to my boat, directing Lieutenant Carr to steer in for the bay when he got a breeze, supposing it would set in at the ordinary time, eleven o'clock. I landed on a small islet, about six miles from the place where I left the ship, and near the mouth of the bay. To reach the islet we pulled in over the reef, which had on it about four feet of water. The islet was composed of scoriaceous lava, much worn, and about twelve feet above the coral shelf. Here I established myself, and was busy securing my observations, when I discovered that my boat was aground, and that the tide was still falling. The islet as well as the reef became dry. It was not long before we observed the shadow of natives projecting from a rock about fifty yards from us, who it now appeared were watching us closely; and not long after not less than fifty shadows were seen in different directions. I at once ordered all the arms and ammunition to be brought up on the top, and made our situation as defensible as possible, for I had little doubt if they saw that we were unprepared they would attack us. The firing of one or two guns, and the show that we were all on our guard, at once caused a change in their intentions towards us, which they manifested by bringing articles of trade.

In the afternoon we again got under way, and proceeded farther up the bay, anchoring off Wai-cama, or the hot springs, in twenty-eight fathoms water. The bay of Savu-savu is a fine sheet of deep water, ten miles in length, east and west, by five miles in breadth, from north to south; it is surrounded by very high and broken land, rising in many places into lofty needle-shaped peaks; it is protected by the extensive reef reaching from Savu-savu Point on the east, to Kombelau on the west, excepting a large opening of about a mile in width, two miles distant from Savu-savu Point. On anchoring I despatched two boats, under Lieutenants Case and Underwood, to join the surveys we had made in the tender, as far as Rativa Island; they departed the same evening on this duty. The projection of land forming Savu-savu Point is much lower than that on the other sides of the bay.

I visited the hot springs, which are situated opposite a small island, round which a narrow arm of the bay passes, forming a small harbour; a considerable stream of fresh water enters the bay, about a mile above the situation of the springs. On landing, we found the beach absolutely steaming, and warm water oozing through the sand and gravel; in some places it was too hot to be borne by the feet.

The hot springs are five in number; they are situated at some distance from the beach, and are nine feet above the level of high water; they occupy a basin forty feet in diameter, about halfway between the base of the hill and the beach. A small brook of fresh water, three feet wide by two deep, passes so close to the basin, that one hand may be put into a scalding spring, and the other in water of the temperature of 75°. That of the spring stands at 200° to 210°. The waters join below, and the united streams stand at 145°, which diminish in temperature until they enter the sea. In the lower part of the bed of the united stream, excavations have been made, where the

natives bathe. The rock in the neighbourhood is compact coral and volcanic breccia, although it is no where to be seen exposed within a third of a mile of the spring. The ground about the spring is a deep brown and black mould, covered with coarse native grass, (a species of *scirpus*,) which is thickly matted. There is no smell of sulphur, except when the head is brought as close as possible to the water; but it has a strong saline taste. No gas appeared to be disengaged. The basin is in a mixture of blue and brown clay, and little grass grows in it.

These springs are used by the natives to boil their food, which is done by putting the taro or yams into the spring, and covering them up with leaves and grass. Although the water scarcely had any appearance of boiling before, rapid ebullition ensues. It gurgles up to a height of eight or ten inches, with the same noise as is made by a cauldron when over the fire. Taro, yams, &c., that were put in, were well done in about fifteen minutes. The mouths of the springs are from eighteen inches to two feet in diameter, and have apparently been excavated by the natives for their own purposes. The account they give of them is, that they have always been in the same state since the spirit first took up his abode there. They are convinced that he still resides there, and the natives say that one spring is kept pure for him, which they do not use.

On the 3rd of July the tender came in and anchored, having succeeded in accomplishing the survey of both the island of Goro and the Horseshoe Reef. The former is considered by the natives one of the most fruitful islands of the group; it is a high island, though not so much broken as the others, and, from appearance, would be susceptible of cultivation to its very top. It is surrounded by a reef, which is, for the most part, a shore-reef, and affords no harbour; there is, however, anchorage on the north-west side. The island is nine and a half miles long, by four miles wide. The produce of Goro is oil and tortoise-shell, and exceeds in quantity that of any other island of the group; its population is two thousand.

The Horseshoe Reef lies between Goro, Nairai, and Wakaia; it is an extremely dangerous one. The name is derived from its shape, and its opening is on the north side; it is even with the water, which after stormy weather may be seen breaking on it, from the heights of Ovalau; it is one mile in diameter; there are no other dangers nearer to it than the north reef of Nairai.

The bay of Savu-savu may be known by a remarkable saddle-shaped peak, lying just behind it; there are several other high peaks, that show the interior to be very rugged and high. Some of these peaks reach the altitude of four thousand feet.

At daylight on the 5th, the Vincennes got under way to proceed to Mbna or Sandalwood Bay, with a moderate and favourable breeze. I determined to take the outside passage off Kombelau Point, although that usually pursued, which is close to the land, is considered the safest. There is a reef off Kombelau Island, five miles in length by two in width; and beyond, and between it and the great Passage Island Reef, there is a passage supposed to be full of shoals. I had reason to believe, however, from the examination of Lieutenant Perry

and Mr. De Haven, that there would be no difficulty in taking the ship through, which I accordingly did. This channel has shoals in it, some with but a few feet of water over them, while others have sufficient for any class of vessels. The least water we had was nine fathoms. I believe we were enabled to locate all the shoals in it, and I think it a safe passage. With the sun in the east, and steering towards the west, the dangers are distinctly visible.

Beyond Buia Point the passage becomes still more intricate, and opposite Rabe-rabe Island it is quite narrow, though there is ample water for any vessel. We, however, went briskly on, having a fine breeze from the eastward. After getting sight of the Lecumba Point Reef, there is but a narrow channel into the bay, which we reached at half-past 3 P.M. The Peacock had just arrived from the north side of Vanua-levu, and anchored.

Mbua or Sandalwood Bay, though much filled with large reefs, offers ample space for anchorage.

The holding-ground is excellent, and the water not too deep. The bay is of the figure of a large segment of a circle, six miles in diameter, and is formed by Lecumba Point on the east and that of Dimba-dimba on the west. The land immediately surrounding it is low, but a few miles back it rises in high and picturesque peaks. That of Corobato is distinguished from the Vitilevu shore, and has an altitude of two thousand feet. The shores of the bay are lined with mangroves, and have, generally, extensive mud-flats. There are few facilities here for obtaining either wood or water, as the anchorage is a long distance from the shore. Several small streams enter the bay in its upper part, flowing from some distance in the interior. This was the principal place where the sandalwood was formerly obtained, but it has for some years past been exhausted. I shall defer speaking of this district until I have given an account of the operations of the Peacock.

CHAPTER XXVI.

FEEJEE GROUP—(CONCLUDED).

PEACOCK AT VATULELE—SUVA HARBOUR—ISLAND OF MBENGA—HARBOUR OF NDRONGA—ISLAND OF MALAKI—SURVEY OF SANDALWOOD BAY—DEMBA-DEMBA POINT—NALOA BAY—TOWN OF MUTHUATA—PEACOCK LEAVES MUTHUATA—JOINS THE VINCENNES IN MBUA BAY—STATE OF THE SURVEYS—CAPTURE OF THE FIRST CUTTER BY THE NATIVES IN SUALIB BAY—MEASURES TAKEN IN CONSEQUENCE—ATTACK ON THE TOWN OF TYE, ITS DESTRUCTION—REMARKS THEREON—RELEASE OF PRISONERS—FRESH SURVEYS MADE—ANGANGA ISLAND—THE PORPOISE JOINS THE TENDER AND BOATS—BOATS REJOIN—MELANCHOLY NEWS—MURDER AT MALOLO OF LIEUTENANT UNDERWOOD AND MIDSHIPMAN HENRY—HISTORY OF THE MASSACRE—BURIAL OF THE SLAIN—PREPARATIONS FOR AN ATTACK ON MALOLO—ATTACK ON MALOLO—ARRO BURNT—SUBMISSION OF THE CHIEFS AND PEOPLE—REFLECTIONS THEREON—PREPARATIONS FOR LEAVING THE FEEJEE GROUP.

On the 26th of May, the Peacock was off Vatulele. Leaving Mbenga to the north, Kantavu on the south, and passing through the sea of Kantavu, they had surveyed the south-west side of Vatulele, and afterwards stood for the opening in the reef off the west end of Vitilevu, through which they passed after sunset, anchoring on the inside of the reef of Navula, in thirteen fathoms water. This is the limit of the king of Rewa's authority.

On the morning of the 27th, they coasted along the land inside of the reef. The shores of Vitilevu are here low; but the land within a short distance rises to the height of one thousand feet, and has a brown and barren appearance. It is destitute of trees, except on the low points along the shores which are covered with mangrove (rhizophora) and cocoa-nut groves.

Towards sunset the vessel ran upon a coral lump, which gave her a considerable jar; but, on getting out a kedge, they very soon hauled off, when Captain Hudson anchored for the night.

In the evening, partly as a signal for the absent boats that were appointed to meet the ship here, and partly for effect on the natives, they fired an evening gun, burnt a blue-light, and set off three rockets, or as the natives term them, "fiery spirits." These brought forth many shouts from the land, which were audibly heard on board, although the

vessel was at a great distance from the shore. These signals were soon answered by a rocket from the boats, which joined the ship early the next morning.

Lieutenant Emmons, his officers, and boats' crews, were all well. No accident had occurred to them, and he reported that he had finished his work. After leaving the ship at Rewa, he passed outside the reef for several miles, until he came to a narrow and deep passage through the reef, which led to a spacious harbour, on which lies the village of Suva. The natives of this village told Mr. Emmons' interpreter, that they were subjects of the king of Rewa, and that they had lately become Christians. This is the village where the Reverend Mr. Cargill had been the Sunday preceding, and its inhabitants were the first proselytes he had.

Suva Harbour was surveyed and found to be an excellent one, free from shoals, well sheltered, and with good holding-ground, easy of ingress and egress, with an abundance of wood and water. It lies ten miles west of Rewa Roads.

On the 20th, the boats stood over for Mbenga. They found the current setting very strong to the eastward, which made a disagreeable short sea, obliging them to keep two hands bailing to prevent the boat from swamping. Towards night they

entered the reef that surrounds Mbenga through a shallow passage, and anchored off a deep harbour, where they remained for the night.

Mbenga, like all the large islands of this group, is basaltic. Its shape is an oval, five miles long by three wide.

The boats now visited Bird Island, lying in the passage between Mbenga Reef and Vitilevu. The reef off this part of Vitilevu nearly joins that of Mbenga. Two miles beyond this, Lieutenant Emmons entered a well-sheltered harbour, where the boats stayed over-night. About three miles to the westward of it, they found another similarly situated; after which they continued to proceed down the coast, along the reef, without meeting any harbour until after dark, when they succeeded in getting into the exposed one of Ndronga.

The harbour (if so it may be called) of Ndronga, affords no protection against the south-west winds, and is only suitable for small vessels. The anchorage is in five fathoms water. The reef from this point westward increases in distance from the shore from one to two miles.

Five miles beyond this harbour they came to the Malolo Island Passage, where the great sea-reef from the westward joins, having two entrances, the largest of which I have named the Malolo Passage. That to the eastward, which I called the Navula Passage, they passed through and anchored at night under the town of Navula.

On the 26th, Lieutenant Emmons gained Ba, the point where his work was to terminate, and be joined by that of the other parties. On the 28th they went alongside of the Peacock, after having been in the boats seventeen days.

The Peacock now took the launch and cutter in tow, and began beating up for the purpose of reaching the Malaki Islands, in order to take a departure from Amboa Bay.

On the 2nd of June, they reached and landed on the island of Malaki, which is a high islet, divided from the large island by a narrow strait, near which is the town of Rake-rake, which is also subject to Ambau.

Malaki has the appearance of having once been well cultivated. This island is eight hundred feet high, and on the top are the remains of a fortification of stone, whose walls are four feet high, surrounded by a moat several feet deep, and ten feet wide.

On the 8th June, Captain Hudson set about the survey of Sandalwood Bay. He then, with the naturalists and many of the officers, visited the shore. There are three rivers that flow into the bay; the middle one of these they entered. It has two entrances for boats. It is bordered on each side by extensive mud-flats, which are bare at low water for a considerable distance. Parts of these flats are covered by thick mangrove-bushes, among which many women and children were seen catching a large kind of crab, whilst flocks of paroquets were flying around them. This river is about two hundred feet wide, and very tortuous.

The town, named Vaturua, is situated about a mile up the river. The entrance to it is through a hollow way, to pass through which it was almost necessary to creep.

About one-fourth of a mile from Vaturua is another town, called Matainole, which also belongs to

Tui Mora, and is in all respects similar to the other.

In the afternoon of the 10th, Captain Hudson got under way, although nearly all the officers and men were still at work on the survey, and anchored the ship off the northern point of Mbua Bay. This point is called Dimba-dimba, and is considered by the natives as sacred ground; it is kept strictly from any kind of disturbance, for it is supposed to be inhabited by the spirits of the departed, and to be the place where they embark for the regions of Ndengei. It is a most beautiful spot, and in strong contrast with the surrounding country, which is in many places devoid of trees, while here they flourish as nature has planted them.

On the 12th, Captain Eagleston of the *Leonidas* came on board, and piloted them to Nalooa Bay.

On the 17th of June, the Peacock left the bay of Nalooa, in company with the *Leonidas*; and on the afternoon of the 19th, anchored off the town of Muthuata.

The town of Muthuata consists of about one hundred houses, built closely together, and is situated in an open valley close to high-water mark. It is very much exposed and quite defenceless; has but few trees about it, but is one of the best-built towns in the Feejees. The style of building resembles that of Rewa. The king's name is Ndrandanda; his title, Tui Muthuata. He is old and quite infirm, the result of an attack of elephantiasis in one of his legs, which renders it difficult for him to walk.

Tui Muthuata has from eighty to one hundred towns under his control; and his territory extends from Unda Point to the island of Tavea, in Nalooa Bay. Many of these towns are of small extent, and contain but few inhabitants; and I found that to estimate the population by the report of the chiefs themselves, would give erroneous results. Feejee men lie with great plausibility, and particularly if it is to swell their own importance.

On the 28th, Passed-Midshipman Harrison arrived in the schooner *Kai-viti*, with the supply of yams, and my orders to the Peacock to join me at Mbua Bay on the 4th of July.

On the 5th, the Peacock anchored in Mbua Bay, about an hour before the *Vincennes* reached it, all well and in good spirits.

Upon the junction of the Peacock with the *Vincennes* in Mbua Bay, I had it in my power to examine and collate all the work that we had thus far accomplished. After doing this, I found that so much yet remained to be done before a thorough survey of the Feejee Group could be completed, that I must either leave this important duty unfinished, or devote more time to it than had originally been contemplated. I deemed this to be among the most important of the objects of the expedition; and considering that the seas around these islands abound in dangers whose position had up to this time been entirely unknown, I resolved not only to complete the surveys, but not to leave the group until I had entirely satisfied myself of the accuracy of the work.

In furtherance of the last object, I set all who had been employed in the service to work in plotting and calculating their surveys, while the features of the region were yet fresh in their memories.

For a few days, at this time, every one was employed who could work, in repairing the boats, preparatory to the further examinations which I contemplated making on the hourly-expected arrival of the Porpoise.

On the afternoon of the 12th, Lieutenant Perry arrived in the launch, bringing with him Mr. Knox and the crew of the first cutter. That boat had been captured by the natives, at Sualib Bay, about twenty-five miles to windward, on the same island. In this bay the launch and first cutter had taken refuge during the bad weather, although it offers indifferent accommodation. After being there two or three days, they attempted to beat out, when the cutter, in trying to go about, near the reef, missed stays and was thrown on it. At the time this occurred, it was low water. The natives, who, it was supposed by the party, had anticipated the accident, had followed along the reef, and, as soon as it happened, crowded down, all well armed with clubs, spears, stones, &c. Mr. Knox, finding it impossible to get the boat off, thought of looking into his means of defence, and found himself completely in the power of the natives, for all his arms and ammunition were soaked with salt water. Lieutenant Perry, finding that the launch could not make headway against the wind and sea, had anchored at long gun-shot from the spot where the cutter had gone on shore. As soon as he saw what was going forward, he opened a fire on the natives, but without effect; for they, notwithstanding, collected around Mr. Knox's party, and gave them to understand that they must abandon the boat and go on board the launch. Having no choice left, he took out all the arms and the chronometers, and, keeping the natives at bay, by pointing the guns at them and threats of killing them, the crew reached the launch in safety. The natives took possession of the first cutter, dragged her over the reef, and stripped her of every thing. They then appeared to be eagerly watching the launch, at which they occasionally fired their muskets, with which they are better provided on this island than elsewhere. They did not prove good marksmen, however, for they did no damage.

Two natives, from another part of the shore, now swam off to the launch, with offers of assistance to Lieutenant Perry; but he supposed that this was done to spy out his weakness, and learn how to take advantage of it. He, therefore, at once seized and retained them. They proved to be a great chief and an inferior one. After he had obtained possession of these men, the natives on shore gave him no further trouble, but remained lurking about the mangroves.

The next morning, the weather having moderated, he was enabled to get out of the bay, and reached the ship at the above date.

Immediately on receiving the report, I ordered the two prisoners to be put into irons, and the schooner and eight boats, four from each ship, to be ready for service at sunset. Twenty additional men and officers were put on board the tender. Captain Hudson and myself both accompanied the party, which left the ships at the appointed time. Our first rendezvous was about twelve miles from the ship, and it was my intention to reach Sualib by daylight the next morning.

The cutter, we found, on our arrival at Sualib Bay, had been drawn up to a considerable distance,

and the tide being low, there was a wide mud-flat between her and the place where we lay at anchor, through which a small tortuous creek led up to her.

The natives of the two towns on each side of the bay, one called Tye and the other Sualib, seemed both to be active in preparing to give us a warm reception. Our interpreter gave me reason to expect that we should not get the boat without a sharp fight, and that she would be perhaps destroyed by fire before we should be able to save her. As it would, in all probability, have been attended with loss of life to make the attempt at low water, I determined to await until the tide rose, and in the mean time to attempt to procure her restoration by negotiation. I therefore sent Whippy and Tom to hold a parley, and to state to the natives, that if they restored the boat and every thing belonging to her, I would, for this time, forgive them.

My conditions not being complied with, I determined to make an example of these natives, and to show them that they could no longer hope to commit acts of this description without receiving punishment.

We moved on for this purpose in an imposing array, keeping ourselves well prepared for an attack, to which we were necessarily exposed on our approach. A very few men could have done us much mischief, had they been tolerable marksmen and stood their ground.

To approach the village we had to pass between long lines of mangrove bushes, and I was assured by Whippy, who had been before on a war-party with a formidable force against these natives and been beaten off, that we should have something more than a mere show of resistance to encounter. Under this expectation we proceeded forwards; but all was silent, and no impediment was offered to our course.

When near the beach the boats were anchored, and the officers and men jumped overboard, and waded in about two feet water to the shore. Every thing was conducted with the most perfect order; the three divisions landed; Captain Hudson, with two, proceeded to burn and destroy the town, and the third remained on the beach as a reserve to protect the boats, for I was apprehensive that an attack might be made on them by those on the other side of the bay, a great many of whom were visible, armed, and apparently ready for a fight. The precaution I had taken to let them know, through Whippy, that I held their chiefs as hostages, and that their safety depended upon the good conduct of the townspeople, I felt was some security, but I had made up my mind not to trust the natives in any way. I therefore kept a large force under my own charge to repel any attack on the boats, and act as a reserve should it become necessary.

The town was soon fired, but the anxiety of some of the sailors to make a blaze, induced them to fire one or two of the thick thatched roofs to windward, while the rest of the party had gone to begin the work of destruction to leeward. The whole village was in consequence soon wrapped in sheets of flame, and many of the men were exposed to danger on their return, from the intense heat of the burning buildings. So close was the resemblance of the noise made by the bursting of the bamboo canes,

(of which material the houses are for the most part built,) to a running fire of musketry, that every one believed that a general fight was taking place in the parts distant and opposite to him.

About an hour sufficed to reduce the whole to ashes, leaving the village a heap of smoking ruins. We then returned to our boats in the same good order in which we landed.

The town of Tye contained about sixty dwellings, built of bamboo, besides a number of yam-houses, wherein they had gathered their crops. The upper and outer yams were well roasted, but the heat from the light material was of short duration, so that few in reality were lost. Another small collection of yam-houses, about a quarter of a mile distant, was also burnt.

Few things were found in the town, for the natives had removed all the articles that could be carried away. Three or four weeks of labour would, therefore, suffice to rebuild their houses, and restore them to the same state as before the burning.

There was no opposition made to this attack; all the Feejee men had retired out of gun-shot, and were only now and then seen from behind the bushes, or on some craggy peak on the sides of the neighbouring hills, from which they were occasionally dislodged by our rockets. This firework produced consternation, and dispersed them in every direction. As the boats were pulling off from the shore, a few balls fell near us, but did no damage.

The infliction of this punishment I deemed necessary; it was efficiently and promptly done, and, without the sacrifice of any lives, taught these savages a salutary lesson.

In the first cutter was private and public property to the value of above one thousand dollars, which was all lost.

By reference to my instructions, it will be seen that cases of theft were expressly mentioned as occasions that might require punishment to be inflicted on the natives; yet this transaction formed the gist of one of the charges preferred against me by the administration, on my return to the United States.

The conduct of the officers and men on this occasion showed a promptness and energy that were highly creditable, and gave me the assurance that they were as much to be depended upon in dangers of this description, as I had hitherto found them in others.

The next day having become satisfied that the Sualib chiefs who had been detained by Lieutenant Perry had really meant to act a friendly part, I determined, for the purpose of making the contrast as strong as possible between those who had offered aid and those who had stolen the cutter, to reward the former for their good intentions.

The next morning, all hands were called on deck, and the prisoners brought to the gangway in irons, expecting that their time was now come, and exhibiting great fear, both in their countenances and trembling limbs. Through David Whippy, I then told them, that although appearances were at first against them, I had satisfied myself that they intended to act a friendly part in assisting the launch, and as they had taken no share in the robbery and capture of the boat, and the people of their town had done nothing to molest us, instead of punishing them, I should

reward them with presents, and send them back safely to their town. The joy that was depicted on their countenances at this change can readily be imagined. Their irons were then removed, and the presents given.

After thanking the officers and men for their good conduct in this affair, we piped down, and our several occupations were resumed.

On the 16th of July, the tender and boats being prepared, I ordered the following officers upon an expedition: Assistant-Surgeon Fox, Acting-Master Sinclair, Passed-Midshipman Eld, and Mr. Agate, to accompany me in the tender; Lieutenant Alden and Midshipman Henry in the first, and Lieutenant Underwood in the second cutter of the Vincennes; Lieutenant Emmons and Midshipman Clark in the first cutter of the Peacock. The boats being fully manned and armed, left the vessels in the afternoon, for the island of Anganga.

Orders were left with Captain Hudson to resurvey the Bay of Mbua, (for I was not satisfied with the survey that had been made,) including the outlying reef, and after having completed this duty, to proceed with the Peacock round to Muthuata, and then return for the Vincennes. It was my intention to circumnavigate the whole group of islands, carrying meridian distances from island to island, and likewise to complete and connect by triangulation all the parts that required further examination. I proposed to return to Muthuata by the north and east side of Vanua-levu.

Having satisfied myself with observations on Lakemba Point, I set out in the tender at eight o'clock, P.M., in order to join the boats early the next morning at Anganga Island, about thirty miles from Mbua Bay. At 6 A.M. we anchored near the west end of Anganga Island, where the boats soon after joined us. Anganga Island is high, and very much broken; it is not inhabited, and offers nothing but turtles in the season.

At noon I was rejoiced to discover the Porpoise in sight. She had been looked for during some days, and I could not but feel anxious, knowing the dangers with which the service I had sent her on was surrounded. On her coming up, I ordered signal to be made for her to anchor near us, and in the afternoon we joined company.

Here I pursued my observations, and while I was congratulating myself that I had now finished my last station of the survey, and that my meridian distances and latitudes were all complete, it was reported to me that the three boats were in sight, coming down before the breeze. So unusual an occurrence at once made me suspect that some accident had occurred; and on the first sight I got of them, I found that their colours were half-mast and union down. I need not describe the dread that came over me. We reached the tender only a few moments before them, and when they arrived, I learned that a horrid massacre had but a short hour before taken place, and saw the mutilated and bleeding bodies of Lieutenant Joseph A. Underwood and my nephew, Midshipman Wilkes Henry.

The boats were taken in tow, when we stood for Malolo, and as the night closed in, anchored in its eastern bay.

It would not be easy to describe my feelings at this time; the melancholy event of which I became aware in its full extent by the return of the boats

under Lieutenant Alden, took place just as,—after weeks of intense anxiety for the safety of those under my command, exposed in open boats to the perils of the sea, and in small detachments to the insidious attacks of savages, instigated not merely by cupidity, but by the horrible instinct of cannibal appetite,—I had myself closed the operations of the survey, and awaited only my junction with the boats to be satisfied that all our perils were at an end. One of the victims was my own near relation, confided to my care by a widowed mother; I had therefore more than the ordinary degree of sorrow, which the loss of promising and efficient officers must cause in the breast of every commander, to oppress me.

It was beyond every thing else important, that in the desire of inflicting punishment, I should avoid, as far as possible, the risk of losing other valuable lives. The two chief vessels of my squadron were at a distance, and I knew that the natives of Malolo were not only guarded in their towns by fortifications, impregnable in their own mode of warfare, but were furnished with fire-arms and ammunition. To burn the dwellings of these fastnesses, as I had done at Tye, if an adequate punishment for mere thefts, would have been no sufficient penalty for the present heinous offence, nor would it have served to deter the people of Malolo from similar acts for the future.

My first duty was to receive the report of the officer in command of the boats, and to make such further inquiry into the circumstances of the transaction, as should satisfy me that the bloody deed had not been provoked on the part of the victims. The results of this inquiry were as follow.

On the 22nd July, the first cutter of the Vincennes, Lieutenant Alden and Midshipman Henry, and the Leopard, Lieutenant Underwood, left the station at Eld Island, and proceeded along the right side of Waia, for the purpose of fulfilling my orders to survey the small islands lying north of Malolo. This done, they had instructions to join the tender or Porpoise on the western side of that island, and survey such islands as they might fall in with on the way. After passing Waia, the boats anchored for the night under one of the small islands.

The next day, they were employed in the survey of the small islands, and in the evening anchored in the bay on the east side of Malolo, formed by it and Malolo-lai-lai, or Little Malolo.

On reaching this place, Lieutenant Alden, being desirous of ascertaining if the Porpoise was at the anchorage on the west side, directed Lieutenant Underwood to land near the south end of Malolo, and to ascend a small eminence to get a view of that anchorage. Lieutenant Alden, it appears, cautioned Lieutenant Underwood to go well armed and to be on his guard with the natives, as on his former visit, about six weeks before, he had been led to doubt their friendly disposition, and, in consequence, had avoided having any communication with them. He also directed Lieutenant Underwood to return before sunset.

Lieutenant Underwood landed and went up the hill with one of his men. After a few minutes, Lieutenant Alden observed some suspicious movements among the natives near the point, and, in consequence, hoisted a signal of recall. Lieutenant

Underwood was soon seen returning to the boat with his man and a native. Before leaving the beach, he had some talk with the natives.

On joining Lieutenant Alden, he reported that there was no vessel in sight, and mentioned that on his way up the hill, he suddenly came upon a native carrying an armful of clubs, who, the moment he perceived him, threw down his load and attempted flight, but Lieutenant Underwood detained and made him go before them to the boat. When they reached the beach, a party of natives joined, and appeared to him much disconcerted at finding the lad a prisoner, and without arms.

They passed the night at anchor in this bay, and on the morning of the 24th, discovered the tender at anchor to the eastward. At nine o'clock Lieutenant Emmons joined them in the Peacock's first cutter, having passed the night at one of the small sand-islands in the neighbourhood. Lieutenant Emmons found them waiting breakfast for him. They anticipated that he had some more provisions for them, as he had recently parted with the tender, and hoped to procure some yams, pigs, &c., from him, or from the tender herself, which would in all probability reach Malolo during the day.

When Lieutenant Emmons arrived, several of the natives, some of whom were armed, were on the beach where the boats' crews had cooked their breakfast.

Many inducements were offered to them for pigs, yams, &c., with very little success, each offering some excuse, and urging the necessity of the boats going to their town for such things.

Just after they had finished their breakfast, the chief spokesman of the village came, wading out near the boats, and invited them, in the name of the chief, to their town, where he said the chief had secured four large hogs as a present for them.

It appears that Lieutenant Underwood now volunteered to go to the town for provisions, taking with him John Sac (the New Zealander heretofore mentioned) as interpreter, from Lieutenant Alden's boat. He, in consequence, shoved off, leaving the other boat to follow him as soon as the tide would allow it to cross the reef between the islands. Lieutenant Emmons then pushed his boat for the shore, and landed, with three armed men, on Malolo-lai-lai, in order to obtain some angles from the top of a hill. On his approaching the beach, the natives waded off to his boat, but he ordered them off, and directed the officer with him, Midshipman Clark, to keep his boat afloat, and not suffer them to approach her during his absence. This order was strictly attended to, and although a similar attempt was again made, the natives when ordered off retired as before.

Lieutenant Underwood's boat drew too much water to get across the reef, and grounded, upon which a number of natives collected around her, and joining with the boat's crew, assisted to drag her over the reef. At this time the natives got a knowledge of the feebleness of the armament of Lieutenant Underwood's boat. To my surprise I have since learned that Lieutenant Underwood had left the greater part of the armament with which he had been furnished on board the brig some few days before. Seven rifles had been put on board that vessel, under the idea that it would lighten the boat, and no more than three out of

the ten he took with him from the Vincennes remained.

On landing they found no more than two pigs tied to a tree for sale, instead of the four they had been promised as presents. These the natives declined selling until the chief, who was out upon the reef fishing, should return. A messenger was sent for him, and he soon made his appearance, but conducted himself haughtily, and refused to part with his hogs except for a musket, powder, and ball, which being against orders was refused.

Lieutenant Alden entertained some uneasiness at the number of natives that had crowded around the Leopard, and proceeded to join her, but was detained near the reef about twenty minutes before the tide would allow the boat to pass over, the first cutter drawing more water than the Leopard. On entering the bay, he found the Leopard at anchor about two thousand feet from the shore, in just sufficient water to enable his boat to get alongside. He was informed by the boat's crew that Lieutenant Underwood had gone on shore, leaving a hostage in the Leopard, whom Lieutenant Alden immediately took into his own boat. Lieutenant Underwood was accompanied to the shore by J. Clark, armed with a rifle and sheath-knife; J. Dunnock and J. McKean, armed with cutlasses; William Leicester, who had the trade-box, unarmed; John Sac, interpreter, unarmed; Jerome Davis and Robert Furman, unarmed. The rest of his men remained in the boat, armed with cutlasses and two rifles.

Lieutenant Underwood was now seen on the beach, endeavouring to trade with a party of about fifteen natives, whence he sent off Robert Furman, a coloured boy, to Lieutenant Alden, to say that the natives would not trade, except for powder, shot, and muskets. Furman was sent back by Lieutenant Alden to say, that he would not consent to any such exchange while the schooner was within reach; that they could be supplied by her, and that he must hurry off, as he thought he had been long enough absent (having remained on shore about an hour) to purchase all they required, if the natives were disposed to trade.

After this, Midshipman Henry asked, and Lieutenant Alden gave him permission to land in the canoe, and come off with Lieutenant Underwood. A few moments after, a small canoe came alongside Lieutenant Alden's boat, and exchanged some words with the hostage, who displayed a little anxiety to return with them to the shore. As the canoe shoved off, he attempted to leave the boat, when Lieutenant Alden took him by the arm and directed him to sit down, giving him to understand that he must keep quiet. Lieutenant Emmons now joined, and the Leopard was ordered to drop in as near to the party on shore as possible. The tide had by this time risen sufficiently to allow her to go most of the way on the reef. After another half hour had expired, Jerome Davis, one of the boat's crew, came off with a message from Lieutenant Underwood, that with another hatchet he could purchase all he required.

The hatchet was given to Davis, who was directed to say to Lieutenant Underwood that Lieutenant Alden desired to see him without delay, and that he should come off as soon as possible with what he had.

While Lieutenant Alden was relating the cir-

cumstances of the hostage's desire to escape to Lieutenant Emmons, from the starboard side of the boat, the hostage jumped overboard from the larboard quarter, and made for the shore, in two and a half feet water, looking over his shoulder, so as to dodge at the flash if fired at. He took a direction different from that of the party on the beach, to divide the attention of those in the boats. Lieutenant Alden immediately levelled his musket at the hostage, who slackened his pace for a moment, and then continued to retreat.

Midshipman Clark, who was ready to fire, was directed to fire over his head, which did not stop him.

J. Clark testifies that Lieutenant Underwood, McKean, and himself, were standing near the beach, waiting the return of Davis, when they saw the chief escape from the boat, and heard the report of the musket. The old chief, who was standing near, immediately cried out that his son was killed, and ordered the natives to make fight. Upon this two of them seized upon Clark's rifle, and tried to take it from him. One of these he stabbed in the breast with his sheath-knife; the other Mr. Underwood struck on the head with the butt-end of his pistol, upon which both relinquished their hold. Lieutenant Underwood then ordered the men to keep close together, and they endeavoured to make their way to the boat, facing the natives. Lieutenant Underwood also called upon Midshipman Henry to assist in covering the retreat of the men to the boats, to which Mr. Henry replied, that he had just received a blow from the club of a native, and would first have a crack at him. He then pursued the native a few steps, and cut him down with his bowie-knife pistol, and had again reached the water's edge, when he was struck with a short club on the back of the head, just as he fired his pistol and shot a native. The blow stunned him, and he fell with his face in the water, when he was instantly surrounded by the natives, who stripped him. The natives now rushed out from the mangrove-bushes in great numbers, some of them endeavouring to get between Lieutenant Underwood and the water, while others crowded upon his party, throwing their short-handled clubs and using their spears. Lieutenant Underwood, having received a spear-wound, fired, and ordered the men to do the same; and after he had fired his second pistol, was knocked down by the blow of a club. Clark at the same time was struck, and had no farther recollection.

J. Dunnock says that he was at some distance from Lieutenant Underwood at the time the attack was made; and the first intimation he had of it, was Lieutenant Underwood's order to keep together and go down to the boat. While obeying the order, he saw the natives seize upon Clark's rifle, and strike Lieutenant Underwood; but after this he had as much as he could do to avoid the clubs and spears hurled at himself. He says that Mr. Henry was near him, and up to his knees in water, when he received the blow from the short club which knocked him down lifeless, with his face in the water. He did not see the hostage escape, nor hear the gun fired.

McKean states that he was standing by the side of Lieutenant Underwood at the time they were awaiting the return of Davis; that suddenly there

was a movement among the natives, and the cause of it was discovered to be the escape of the hostage. Mr. Underwood, anticipating trouble, immediately ordered the men to assemble and make for the boat.

John Sac's story corroborates that of McKean. He says, that upon hearing the gun, and seeing the hostage escaping, the chief cried out that his son was killed, and gave the war-cry.

On seeing the attack, Lieutenants Emmons and Alden pushed for the shore, with both boats. The former had already started to endeavour to retake the hostage. The boats commenced firing as they sailed in on some natives who appeared to be wading out to meet them. As soon as the boats took the bottom, all jumped out except two boat-keepers, and waded in, occasionally firing at the natives, who now retreated, carrying off their dead and wounded, and soon disappeared among the mangrove-bushes.

Before reaching the beach, J. G. Clark was met badly wounded, and was taken at once to the boats. On the beach lay Lieutenant Underwood, partly stripped, and Midshipman Henry, quite naked, with a native close by the latter, badly wounded, who was at once despatched.

The party, picking up the bodies, bore them to the boats. On the first inspection, some faint hopes were entertained that Midshipman Henry was not dead; but a second examination dissipated this idea.

The boats now hauled off, and made sail to join the tender, where they had seen her in the morning at anchor.

Every attention was paid to the wounded and dead by the officers that affection and regard could dictate; and I could not but feel a melancholy satisfaction in having it in my power to pay them the last sad duties, and that their bodies had been rescued from the shambles of these odious cannibals. Yet, when I thought that even the grave might not be held sacred from their hellish appetites, I felt much concern relative to the disposition of the bodies. I thought of committing them to the open sea; but one of the secluded sand-islands we had passed the day before occurred to me as a place far enough removed from these condor-eyed savages to permit them to be entombed in the earth, without risk of exhumation, although there was no doubt that our movements were closely watched from the highest peaks. On consultation with the officers, they concurred with my views on this point.

There being no doubt, from the reports of all parties present, that this outrage was entirely unprovoked, I had no hesitation in determining to inflict the punishment it merited, and this, not by the burning of the towns alone, but in the blood of the plotters and actors in the massacre.

The two first cutters of the Vincennes and Peacock were therefore directed to take up stations to prevent the escape of any persons from the island, and before daylight Passed-Midshipman Eld was despatched on the same service with the Leopard.

The tender got under way at the same time, and proceeded towards the spot I had chosen for the place of burial.

The sun rose clearly, and nothing could look more beautiful and peaceful than did the little group of islands, as we passed them in succession

on our melancholy errand. At the last and largest, about ten miles from Malolo, we came to anchor. Dr. Fox and Mr. Agate went on shore to select a place, and dig a common grave for both the victims. About nine o'clock they came off, and reported to me that all was ready. The bodies were now placed in my gig, side by side, wrapped in their country's flag, and I pulled on shore, followed by Mr. Sinclair and the officers in the tender's boat.

Only twenty sailors, (all dressed in white,) with myself and officers, landed to pay this last mark of affection and respect to those who had gone through so many toils, and shared so many dangers with us, and of whom we had been so suddenly bereaved. The quiet of the scene, the solemnity of the occasion, and the smallness of the number who assisted, were all calculated to produce an unbroken silence. The bodies were quietly taken up and borne along to the centre of the island, where stood a grove of ficus trees, whose limbs were entwined in all directions by running vines. It was a lonely and suitable spot that had been chosen, in a shade so dense that scarce a ray of the sun could penetrate it.

The grave was dug deep in the pure white sand, and sufficiently wide for the two corpses. Mr. Agate read the funeral service so calmly and yet with such feeling, that none who were present will forget the impression of that sad half hour. After the bodies had been closed in, three volleys were fired over the grave. We then used every precaution to erase all marks that might indicate where these unfortunate gentlemen were interred. I felt as if to refrain from marking the spot where they were laid, deprived us of one of the consolations that alleviate the loss of a relative and friend, but was relieved when it occurred to me to fix a more enduring mark on that place, by naming the island after my nephew, "Henry," and the pretty cluster of which it forms one, "Underwood Group."

Places remote from the grave were now more disturbed by footsteps and digging than the grave itself, and our tracks were obliterated from the sand, leaves being thrown about to obscure all indications that might lead the wary savage to the resting-place of the dead.

We wandered about the beach a short time, after which we embarked and weighed our anchor to return to Malolo. Shortly after, we discovered the Porpoise entering the Malolo Passage, with whom we soon joined company, and anchored again in the bay on the east side of Malolo before dark.

Preparations were now actively commenced to punish the actors in this foul deed; the arms were prepared, and the parties duly organized in the course of the night.

Upon the island of Malolo there are two towns, Snalib and Arro. The former was on the southwest side, and the residence of the principal actors in the massacre. Upon this I intended to inflict the heaviest blow. The latter, whose inhabitants had also taken a part in the tragedy, and whose unprovoked hostility had been exhibited by their firing upon the boats from the mangrove-bushes, I determined to burn to the ground. It was also necessary to be prepared upon the water to prevent any attempt at escape, or the more desperate effort to capture the vessels, necessarily left under a feeble guard. The two latter objects were con-

nected, and for this purpose I kept under my own immediate command, my gig, the first cutters of the Vincennes and Peacock, under Lieutenants Alden and Emmons, and the tender's boat, under Midshipman Clark.

The party which was to land and attack Sualib, was placed under the orders of Lieutenant-Commandant Ringgold. It was composed of seventy officers and men, of the crews of the Porpoise and tender, with a few men from the boats, and was arranged in three divisions, under Lieutenant-Commandant Ringgold himself, Lieutenants Johnson and Maury. To the party were also attached Lieutenant North, Passed-Midshipmen Sinclair and Eld, with Assistant-Surgeon Holmes and Mr. Agate.

The party had orders after landing to move upon Sualib, destroying all the plantations they should meet on their way, sparing none except women and children. They were then to march across the island to Arro, and join me for the purpose of re-embarking. Acting-Master Totten, who was too unwell to assist in active operations on shore, was left in charge of the brig, with such of the crew as were on the sick-list, and had orders to prevent the natives escaping across the channel to Malolo-lai-lai.

Nine o'clock in the morning was the hour appointed for landing Lieutenant-Commandant Ringgold's force, which was effected in good order, and the party being arranged in its three divisions, marched off. Before the disembarkation was effected, two natives endeavoured to pass over to Malolo-lai-lai, but a well-directed shot from Mr. Totten compelled them to return.

As soon as Lieutenant-Commandant Ringgold's party had moved off, two canoes were seen turning the point of Malolo-lai-lai. I gave immediate orders to chase and intercept them, when, if they were from any other island, they were to be directed to return on their course, but if belonging to Malolo, they were to be captured. All the boats pulled out, and Lieutenant Emmons, who took the lead, succeeded in cutting them off from the shore. Through Oahu Sam, his interpreter, he found that they belonged to Malolo, and the men in Lieutenant Emmons's boat were so much excited that they at once fired several muskets into the canoes, by which some of the persons in them were struck; the rest immediately jumped overboard, and swam in various directions. By this time I had approached near enough to order the firing to cease, and quarter to be given. The swimmers were then picked up. Among them were found one of the chiefs of Arro, the town we were about to attack, with a woman, a girl, and an infant. I directed the three last to be set on shore and liberated, telling them we did not war against women and children. The men I sent on board the brig, to be put in irons, and had the canoes towed alongside of her.

As soon as we reached the town of Arro, perceiving no natives to oppose us, I despatched Lieutenant Emmons to pull towards the approaching canoes and intercept them, while with the rest of the boats' crews the town of Arro was burnt. In doing this we met with no hindrance, for although the place was large, evidently populous, and well fortified with a ditch and fence, it was found deserted. Many of the male inhabitants, as

I afterwards learned, had gone to Sualib, to aid in the defence of that town, while others had accompanied the women and children to the mountains, whither all their moveable property had also been carried.

Having completed the destruction of Arro, I proceeded in the gig towards the north-west point of the island, for the purpose of joining Lieutenant Emmons, on rounding which, I observed the smoke of the burning of Sualib. As I pulled around the island, I saw many of the natives on the highest peaks, whither they had retreated for safety, and others upon the beach, who, on seeing the boat, fled towards the mountains. In pursuit of these, the "fiery spirits" were frequently sent, to their great alarm. When I had proceeded far enough to get a view of the bay in front of Sualib, neither boat nor canoes were in sight, and I turned back, to rejoin the other boats off Arro.

On reaching them, Lieutenant Alden reported that he had executed the orders, and had, at high water, towed off or destroyed all the canoes. During my absence, an old man had ventured down to the beach, with two others in his company, and made signs that he wished to speak with them. They held a parley with him, through the interpreter, and learned that he was the chief of Arro. He told them that he was houseless, had lost his property, his son, and many of his people; he declared that his village had nothing to do with the killing of the Papalangis, and offering pigs, &c., as presents, begged that we would not punish him any farther.

Lieutenant-Commandant Ringgold, with his party, reached Arro just at sunset. His three divisions were separated immediately after they landed, in order to cover more space, and more effectually to destroy the plantations. The division under Lieutenant Maury was the first to approach Sualib. As soon as the natives got sight of it, they set up shouts of defiance. No signs of fear were exhibited, but, on the contrary, every proof of a determination to resist.

Lieutenant-Commandant Ringgold in a short time came up with his division, and on examining the defences of the town, thought it expedient to await the arrival of Lieutenant Johnson. Upon the latter officer coming up, which was shortly after, the three parties descended the hill, and approached the ditch of the town. The natives boldly sallied out to meet them, with a discharge of arrows, and exhibited the utmost confidence. They in truth believed their town to be impregnable, for it had hitherto withstood every attack made by Feejee warriors. Its defences evinced no little skill in engineering: a ditch twelve feet wide and full of mud and water, surrounded the whole; next came a strong palisade, built of coconut trunks, placed four or five feet apart, among which was here and there a living tree; this palisade was united by a fence of wicker-work, about ten feet high, so strong and dense as to defy all attempts to penetrate or even see through it; inside of the palisade was a second ditch, recently excavated, the earth thrown up from which formed a parapet about four feet in thickness, and as many in height. In the ditch the defenders sheltered themselves, and only exposed their heads when they rose to shoot through the loopholes left in the palisade. As the whole party continued to ap-

proach the fortification, our men spread out so as to outflank the skirmishers, and by a few rockets and a shower of balls showed them that they had different enemies from Feejee men to deal with. This compelled them to retire within the fortification, and abandon all on its outside to destruction. When the skirmishers had retired into the fortresses, all united in loud shouts of *lako-mai* (come on!), flourishing their spears and clubs.

Our party having approached within about seventy feet of the stockade, opened its fire on the fortification. Now was seen, what many of those present had not before believed, the expertness with which these people dodge a shot at the flash of a gun. Those who were the most incredulous before, were now satisfied that they could do this effectually.

For about fifteen minutes an obstinate resistance was kept up with musketry and arrows. In this the women and children were as actively engaged as the men, and all made a prodigious clamour. After the above time, the noise diminished, the defence slackened, and many were seen to make their escape from a gate which was intentionally left unattacked, carrying the dead and wounded on their backs. A rocket, of which several had already been tried without visible effect, now struck one of the thatched roofs; a native sprang up to tear it off, but that moment was his last, and the roof immediately burst into flames. Upon this Lieutenant-Commandant Ringgold recalled several officers who were desirous of storming the town through its small gate, an attempt which, even if successful, must have been attended with loss of life on our part, and which the success of the rocket practice rendered unnecessary. To force the gate would have been a difficult operation, had it been defended with the least pertinacity, for it was constructed in the manner of a fish-weir. The natives, as has been seen, had, in addition to their arrows, clubs, spears, and muskets; but the latter were so unskillfully handled as to do little damage, for they, as I had before been informed was their practice, put charges into them according to the size of the person they intended to shoot at. They believe that it requires a larger load to kill a large man than it does to kill a small one. The bows and arrows were for the most part used by the women.

The moment the flames were found to be spreading, a scene of confusion ensued that baffles description. The shouts of men were intermingled with the cries and shrieks of the women and children, the roaring of the fire, the bursting of the bamboos, and an occasional volley of musketry.

The heat became so intense, that Lieutenant-Commandant Ringgold drew off the divisions to a cocoa-nut grove in the neighbourhood, where he waited until the conflagration should have exhausted its fury. After the lapse of an hour, the whole town was reduced to ashes, and a few of the officers and men were able, although with difficulty, to enter within its ditch. It was evident that large quantities of water and provisions (pigs, &c.) had been stored up, in the anticipation of a long siege. Numerous clubs, spears, bows and arrows, with several muskets, were picked up, together with fish-nets, *tapa*, &c., and the cap of Lieutenant Underwood. Only four bodies were found, among whom was that of a child, which had been seen

during the conflagration, apparently deserted, and in a state of danger, from which our men would gladly have relieved it, had it been possible.

Our party sustained but little injury. Only one man was struck by a ball, which, however, did no other harm than to tear his jacket. Several were wounded by arrows, but only Samuel Stretch, quarter-gunner, so severely as to cause any solicitude.

After the destruction of the town, the third division, under Lieutenant Maury, was ordered to return to the brig, along the beach of the western side of the island. This route was chosen for the sake of the wounded man, who was unable to travel over the hills. The first and second divisions marched across the island to the town of Arro. The officers describe the scene that lay before them, when they had reached the highest part of the ground that lay in their route, as extremely beautiful. In the valley below them, and on the declivities of the hills, were to be seen yam and taro-patches kept in the neatest order, with the small yam-houses (*lololo*) in the midst, surrounded by groves of tall cocoa-trees, and plantations of bananas. All looked quiet and peaceful, in strong contrast to the exciting contest in which they had just been engaged, and the character of the ruthless and murderous race who had been the occupants of the smiling valley.

Lieutenant-Commandant Ringgold, with these divisions, reached the beach of Arro at sunset, when a part of the men were embarked in the canoes and boats. Lieutenant Alden was at once despatched round the island in the cutter, for the purpose of rendering assistance to Lieutenant Maury, but he arrived too late to be of service.

While these transactions were taking place on the island, the water also became the scene of a conflict. Lieutenant Emmons, who had been despatched to intercept the five canoes, reported to be seen from the ridge, pulled round the island without discovering them. While making this circuit, he fell in with the party under Lieutenant North, and took the wounded man into the boat, leaving one of his eight in his place. He then pulled to the brig, where he refreshed his men, and in the afternoon proceeded round Malolo-lalailai to search for the canoes, supposing they might have escaped and been drawn up in the mangrove-bushes. He soon, however, discovered the enemy poling along the outer reef towards Malolo-lalailai. They were somewhat separated when first seen, but as he approached, the weathermost made sail to leeward to join their companions, and when they had accomplished this, all struck their sails and advanced to attack him, manoeuvring together. In each canoe there were about eight warriors, having a kind of breast-work to protect them from the shot, while Lieutenant Emmons's boat's crew consisted only of seven. After a short but severe contest, only one of the canoes escaped; the others were all captured, together with their warriors. Lieutenant Emmons reached the brig, with three of his prizes, a little before midnight.

Shortly after daylight, a few natives were seen on the beach opposite to the tender. I had been hoping throughout the night that some overture would be made, and at once took my gig, with the interpreter, and pulled for them. As we approached the edge of the reef, which was now bare, it being

low water, all the men retired, leaving a young native woman standing, with the different articles near her belonging to Lieutenant Underwood and Midshipman Henry. She held a white cock in her arms, which she was desirous of my accepting; but, believing it to be an emblem of peace with this people, (which I found afterwards was the case,) I refused it, but took the other articles. I declined the pacific offering, because I had no idea of making peace with them until it should be sued for after their own fashion. I had obtained a sufficient knowledge of their manners and customs to know that it was usual for them, when defeated, and at the mercy of their enemies, to beg pardon and sue for mercy, before the whole of the attacking party, in order that all might be witnesses. I also knew that they never acknowledged themselves conquered unless this was done, and would construe my failing to require it of them into an admission that I had not succeeded in overcoming them. Many messages were, indeed, delivered to me by this girl from the chiefs, expressive of their sorrow for having attacked and killed our little chiefs; but, in Feejee language, this amounted to nothing; and I was determined to receive from them a formal acknowledgment of defeat, according to their own mode, before I made peace with them, however anxious I was to avoid any more bloodshed. I therefore sent the chiefs and people a message that they must come and beg pardon and sue for mercy, before all our warriors, on a hill that I pointed out, on the south end of the island, saying that I should land there in a little while to receive them, and that if they did not come they must be responsible for the consequences.

At about eight o'clock I went on board the Porpoise, where I had in confinement a chief of Arro and some of his followers, in order that the fears of the people of the island might not induce them to neglect the opportunity of asking for peace, and knowing that this chief would have great influence in bringing about the result I desired. I had an interview with him in the cabin. The first question I put to him startled him not a little: it was, whether he could trust his life in the hands of any of his people that were on board with him; for it was my intention to send a messenger from among those natives on board to the chiefs and people of the island, and if he did not execute it and return at the appointed time, I should shoot him. His eyes grew very large, he hesitated, and then spoke very quickly. At last he said, "Yes;" but that he would like the two younger boys to be sent, as they were the best and most trustworthy. My object was now fully explained to him; and after he thoroughly understood the penalty both to himself and the people of the island, he entered warmly into my views, as he perceived that by so doing he would at once regain his own liberty, and save his island from farther devastation.

The boys, who were respectively about fifteen and seventeen years of age, were then called into the cabin. I took two reeds, and repeated, through the interpreter, the messages, which the chief took great pains to make them understand. They were to this effect: that the whole of the natives of the island should come to me by the time the sun was overhead, to beg pardon and sue for mercy; and that if they did not do so, they must expect to be exterminated. This being fully understood by the

boys, they were landed, the chief having previously assured them that his life depended on their good conduct and haste in executing their charge.

Every thing was now prepared, agreeably to the orders of the night before, and the whole force was landed; but instead of moving on to make farther devastation and destruction, we ascended the eastern knoll. This is covered with a beautiful copse of casuarina trees, resembling somewhat the pines of our own country. Here we took our station, and remained from about ten in the morning till four o'clock in the afternoon.

The day was perfectly serene, and the island, which, but a few hours before, had been one of the loveliest spots in creation, was now entirely laid waste, showing the place of the massacre, the ruined town, and the devastated plantations. The eye wandered over the dreary waste to the beautiful expanse of waters beyond and around, with the long lines of white sparkling reefs, until it rested, far in the distance, on the small green spot where we had performed the last rites to our murdered companions. A gentle breeze, which was blowing through the casuarina trees, gave out the moaning sound that is uttered by the pines of our own country, producing a feeling of depression inseparable from the occasion, and bringing vividly to my thoughts the sad impression which this melancholy and dreadful occurrence would bring upon those who were far away.

Towards four o'clock, the sound of distant wailings was heard, which gradually drew nearer and nearer. At the same time, the natives were seen passing over the hills towards us, giving an effect to the whole scene which will be long borne in my memory. They at length reached the foot of the hill, but would come no farther, until assured that their petition would be received. On receiving this assurance, they wound upward, and in a short time about forty men appeared, crouching on their hands and knees, and occasionally stopping to utter piteous moans and wailings. When within thirty feet of us, they stopped, and an old man, their leader, in the most piteous manner, begged pardon, supplicating forgiveness, and pledging that they would never do the like again to a white man. He said, that they acknowledged themselves conquered, and that the island belonged to us; that they were our slaves, and would do whatever I desired; that they had lost every thing; that the two great chiefs of the island, and all their best warriors, had been killed, and their provisions destroyed, and their houses burned. They acknowledged a loss of fifty-seven killed. Whether the twenty-five that were opposed to Lieutenant Emmons were included in this number, I know not, but I am rather inclined to believe that they were; for accounts subsequently received, give the same number. They declared that they were now convinced that they never could make war against the white men (Papalangis); and that they had brought two of the chief's daughters as a present for the great chief. During the whole time that the old man was speaking, they all remained bent down with their heads to the ground.

I asked them many questions, and, among others, what had induced them to murder the little chiefs. They acknowledged that the officers had done them no harm, and confessed that they had been killed

without the slightest cause. They stated that all the murderers were slain, and that the act was planned and executed by the people of Sualib, none of whom were then present, or could be found; and said that the persons present were the only ones uninjured. Some of the officers believed that they recognised several of them as having been in the fight. I then, through the interpreter, dwelt upon the atrocity of their crime, and pointed out to them how justly we were offended with them, and how much they deserved the punishment they had received. I told them they might consider themselves fortunate that we did not exterminate them; and farther assured them, that if ever a like act was committed, or any aggression on the whites again took place, the most terrible punishment would await them; that we did not wish to do them any harm, but came among them as friends, and wished to be treated as such; that they must now see the folly of opposing us, as they had lost their best warriors, while we had not lost one; that we never fought against women or children, and never received any gifts or presents; that I granted them pardon, but they must do as I was about to direct them.

I then told them, that to-morrow, very early, they must all come to the town of Arro unarmed, and bring back every article they had taken from the officers, with what provisions they could gather, and that they would be employed to bring water for the vessels. This was according to their customs, that the conquered should do work for the victors.

They readily assented to all these demands, but said that many of the articles belonging to the little chiefs must have been destroyed by fire, and that they knew not where to obtain them, or where to find any thing to eat. I knew that the last assertion was false, as I had seen many plantations on the north-west side of the island which had not suffered, and remained untouched. I therefore told them they must comply with all they had been ordered to do.

They were then dismissed, and instantly vanished from before us. Orders were now given to embark, and we reached the vessels at sunset.

I had great reason to be satisfied with the result of this day's proceedings; for I felt, that after administering to the savages a very severe punishment, I had probably effected the desirable end of preventing any further bloodshed.

Early on the morning of the 28th, the tender and brig got under way, and anchored off the town of Arro, where the natives, to the number of seventy, came down to the beach, with every appearance of humility, to carry into effect the terms we had made with them. The water-bags and breakers were given to them to fill and bring to the beach for the boats. They found this very hard work, and often expressed themselves to the interpreters, who were with the officers attending to the duty, that it would have been as well for them to have been killed in battle as to die of hard work. They toiled thus until nearly sunset, and procured about three thousand gallons of water for us. They also brought twelve good-sized pigs for the crews, some yams and about three thousand cocoa-nuts.

Among the articles restored, was the silver watch of Lieutenant Underwood, almost entirely

melted up, and a piece of the eye-glass of Midshipman Henry.

When I went on shore, I saw the chief and about twenty of the old men, who were not able to take part in the work. I had a long talk with them, through the interpreter, and explained to them that they had brought this trouble upon themselves. I pointed out, particularly, that the blow had fallen upon the town of Arro, as well as upon that of Sualib, because its inhabitants had fired at the boats from the mangrove-bushes, which was wrong; and if it occurred again, or they ever molested the Papalangis, they would meet with exemplary punishment. They all listened with great attention, and said it should never occur again; and that when any Papalangis came to their island, they would do every thing for them, and treat them as friends and children.

At evening, I had the chief who was our prisoner brought up and liberated. He had now, from the death of the one at Sualib, become the highest chief of the island. I gave him good advice, and assured him, that if he allowed any white man to be injured, he would sooner or later be punished. He promised me, that as long as he lived they should always be treated as friends and children; that he would be the first to befriend them; that he now considered the island as belonging to the Papalangis; that he had noted all that I had said; that it was good, and he would be very careful to observe it; that he would, if he had no canoe, swim off to the white people's ships to do them all the service in his power; and that his people should do so also. He was then, with the natives who had been captured, put on shore. When they landed, the whole population were heard crying and wailing over him at his return.

The above are all the important facts relative to this tragical affair, both to the natives and ourselves. I feel little disposed to cast blame any where, but it must be apparent that if the precautions directed in the orders given for the conduct of the officers on boat duty had been adhered to, this misfortune would not have occurred. It is therefore to be regretted, that a strict regard had not been paid to these orders, and that care and watchfulness to preserve and keep all on their guard had not been constantly manifested. It is difficult to imagine how some of the officers should, in spite of all warnings, have indulged an over-confidence in the peaceable disposition and good intentions of the natives; and it is still more surprising that this should have been the case with Lieutenant Alden, who had charge of the party for the time being, and who had frequently expressed himself satisfied, and had also warned others, that the natives of Malolo were not to be trusted. This opinion was not adopted by him without good grounds; for on his former visit, about six weeks before, they had shown a disposition to cut off the launch and first cutter, of which he was then in charge. There was no absolute necessity for obtaining provisions, and still less for his allowing Lieutenant Underwood to remain an hour and a half on shore, chaffering for two or three pigs, when they knew the tender was in sight, and that she would reach the place of rendezvous before night.

The whole of this afflicting tragedy I cannot but believe grew out of a want of proper care and

watchfulness over the hostage, after he had shown a disposition to escape, and a heedlessness that it is impossible to look at without astonishment. The hostage certainly would never have attempted to escape, had there been a proper guard kept over him while in the boat; and from the evidence of all those who were on shore, it appears certain that no disturbance took place until the escape was made.

I am well aware, that all the officers and men present were not at the time satisfied with the punishment inflicted. Many of them even thought that all in any way concerned in the murder ought to have been put to death.

But I felt then as I do now, that the punishment was sufficient and effectual, while it was accompanied, as far as it could be, with mercy. Some, no doubt, will look upon it as unnecessarily severe; but if they duly considered the wanton murders that have been committed on the whites in this group of islands, merely to gratify the desire of plunder or the horrid appetite for cannibal repasts, they would scarcely think the punishment too severe.

The warriors of this island were looked upon as a nest of pirates even by the rest of the group, and had their great crime been suffered to go unpunished, would in all probability have become more fearless and daring than ever.

The blow I inflicted not only required to be done promptly and effectually, as a punishment for the murder of my officers, but was richly deserved for other outrages. It could not have fallen upon any place where it would have produced as much effect, in impressing the whole group with a full sense of our power and determination to punish such aggressions.

Such has been its effect on the people of Malolo, that they have since been found the most civil, harmless, and well-disposed natives of the group.

Notwithstanding that the opinion of all the officers who were present and cognizant of all the facts was, that I had not gone far enough in the punishment I had inflicted, I found myself charged on my return by the administration, as guilty of murder, and of acting on this occasion in a cruel,

merciless, and tyrannical manner. To make out the latter charge, it was alleged that I had made the natives actually crawl to my feet to beg pardon. The part of the whole affair for which I take some credit to myself is, that when I judged it had become necessary to punish, it was in like manner obligatory on me to study how it could be done most effectually; and from the knowledge I had obtained of the customs of the natives, during the time I had been engaged in the group, I was enabled to perform this painful though necessary duty, in a manner that made it vastly more effectual, by requiring of them their own forms of submission, and their own modes of acknowledging defeat.

All the facts of the case are before my countrymen, and they will be able to judge whether I should, for my conduct in the punishment of this atrocious massacre, have been arraigned on a charge of murder, and of acting in a cruel, merciless, and tyrannical manner, and this without any previous inquiry into the facts or motives that led to my actions, and merely on the report of a few discontented officers of the squadron, whom the good of the service compelled me to send back to the United States. Nor were these grave charges made known to me until two days before the court was convened for my trial upon them.

The reunion of the several vessels of the squadron did not give rise to the feeling of pleasure which had attended such meetings on other occasions. A deep gloom on the contrary was spread over the minds of all by the melancholy fate of their comrades, who had been the victims of the butchery at Malolo. In honour of their memories a funeral sermon was preached, on the 10th of August, by the chaplain, before the assembled officers and crews.

On the 10th of August, in the afternoon, the squadron beat down to Mali, and all the necessary preparations were made for going to sea the next day.

On taking our final departure from these islands, all of us felt great pleasure; Vendovi alone manifested his feeling by shedding tears at the last view of his native land.

CHAPTER XXVII.

HAWAIIAN GROUP, OR SANDWICH ISLANDS.

THE SQUADRON PARTS COMPANY—PASSAGE OF THE VINCENNES TO THE ISLAND OF OAHU—M'KEAN'S ISLAND—HULL'S ISLAND—ENDERBURY'S ISLAND—ARRIVAL AT OAHU—GENERAL APPEARANCE OF OAHU—DRESS OF THE INHABITANTS OF HONOLULU—GENERAL APPEARANCE OF THE TOWN—ARRIVAL OF THE PEACOCK AND PORPOISE AT OAHU—VATOA OR TURTLE ISLAND—PLANS FOR THE FUTURE OPERATIONS OF THE SQUADRON—EXPIRATION OF THE MEN'S TIME—RESHIPMENT OF SEAMEN—DUTIES ASSIGNED TO THE SEVERAL VESSELS—INTERVIEW WITH KING KAMEHAMEHA III.—DRESS OF KEKAULUOHI—VISIT TO THE KING—HIS GENTLEMANLY BEARING—HIS CONVERSATION—SATURDAY IN HONOLULU—DEMURE CHARACTER OF THE HAWAIIAN BOYS—COURT-MARTIAL HELD—CRUISE OF THE TENDER TO KAUAI—ISLAND OF KAUAI—FORT OF WAIIMEA—ISLAND OF NIIHAU—THE TENDER RETURNS TO OAHU—THE PORPOISE SAILS FOR THE PAUMOTU GROUP.

I now made signal to the Porpoise to part company, and despatched the tender to run along the sea-reef as far as Round Island, before shaping her course for Oahu in the Sandwich Islands.

All the necessary arrangements with Captain

Hudson being complete by this time, I determined that the vessels should part company. Our passage to Oahu, I thought, would probably be expedited by this course,—a matter of some importance, in consequence of the low state of our stock of

provisions. By pursuing separate tracks, there would, moreover, I conceived, be a better opportunity of searching for some doubtful islands, and of obtaining information in relation to the currents and winds. The vessels therefore parted company on the evening of the 14th of August.

On the 15th, the winds inclined more to the south; and on the 16th, on board the *Vincennes*, we had variable winds, veering to the northward. I therefore tacked to the eastward, in order to take advantage of the change of wind in making easting.

On the 18th, the weather was fine and the wind still light; tropic-birds and tern were seen, and a constant look-out was kept, in the expectation of seeing land. This was the second anniversary of our sailing from the United States.

On the 19th, we made an island in the neighbourhood of the position assigned to Kemins' or Gardner's Island. Its true place is in latitude $4^{\circ} 37' 42''$ S., longitude $174^{\circ} 40' 18''$ W. This is a low coral island, having a shallow lagoon in the centre, into which there is no navigable passage; but the reef on the western side is so low that the tide can flow into the lagoon. Believing this to be the island discovered by Captain Gardner, I have retained his name.

At ten on the morning of the 19th, breakers were discovered from the masthead, and by noon a small island was seen, to which I gave the name of the man who first saw it,—M'Kean's Island. In the afternoon, boats were despatched to survey it.

M'Kean's Island is composed of coral sand and blocks, and is three-fourths of a mile long, by half a mile wide. It rises twenty-five feet above the level of the sea, and has upon it no vegetation except a scanty growth of coarse grass. The surf was too heavy to permit a landing.

Our observations place M'Kean's Island in longitude $174^{\circ} 17' 26''$ W., and latitude $3^{\circ} 35' 10''$ S., and it lies about north-north-east sixty miles from that of Kemins.

On the 26th we made land, which proved to be a lagoon island, about sixty miles to the westward, of the position of Sydney Island. At ten o'clock, being near it, the boats were lowered and sent round one side of the island, while the ship proceeded round the other.

This island was not found on any chart; I therefore called it Hull's Island, in honour of that distinguished officer of our navy. It has no doubt been frequently taken for Sydney Island. Its north-west point lies in longitude $172^{\circ} 20' 52''$ W., and latitude $4^{\circ} 29' 48''$ S.

Enderbury's Island, in latitude $3^{\circ} 8' 8''$ S., longitude $171^{\circ} 8' 30''$ W., is a coral island, with a dry lagoon, three miles long, by two and a half wide. The southern end is the widest, and on it are two clumps of stunted shrubs and plants, consisting of *cordia*, *tournefortia*, *portulaca*, *boerhaavia*, &c. The northern end is almost bare of vegetation, with the exception of a small running vine (*convolvulus maritima*).

Missing Birnie's Island, and feeling that it was necessary for us to be making our way to the Sandwich Islands, on account of the shortness of our provisions, I tacked to the northward, after having spent thirteen days in this vicinity.

On the 23d of September we made the island of

Oahu, and stood in for what those who had been there before, and professed to have a knowledge of the land, said was the situation of Honolulu. They all knew its locality to be under our lee, and I ordered the course accordingly. On approaching the land there was no town to be seen, and every one then knew that a mistake had been made, of which no one was willing to assume the blame. Instead of being off Honolulu, we were under the high land of Mauna Kaala, on the west side of Oahu, near the small village of Wainai.

The appearance of Oahu is by no means inviting; it has a greater resemblance to the desert coast of Peru than any other of the Polynesian islands we had visited, and has as little appearance of cultivation. The country would be termed at first sight barren and rocky. The land in places is very much broken, and rises into high ridges, here and there divided by deep and narrow ravines, with little vegetation, except on the mountain ranges. From the published descriptions of the Hawaiian Islands, I was prepared to see them, and particularly Oahu, a perfect garden. I was inclined to impute my disappointment to our approach being made on its lee side, which is unusual; but I regret to say that any side of it, when seen from the sea, is very far from having an inviting appearance.

I now made a tack off, and by four o'clock we saw the town of Honolulu, which is very conspicuous from the sea, and has more the appearance of a civilized land, with its churches and spires, than any other island in Polynesia.

On the morning of the 24th we came to anchor in the roads, and found the tender had arrived a few days before us, all well.

On landing, a great uproar prevailed, and groups presented themselves to view, so motley that it would be difficult to describe their dress or appearance. There are, indeed, few places where so great a diversity in dress and language exists as at Honolulu. The majority were in well-worn European clothing, put on in the most fanciful manner; but upon the whole, I should say that the crowd were scantily covered, some being half-dressed, many shirtless, none fully clothed, and numbers of them with nothing on but the maro. I had been led to expect a greater appearance of civilization. The women were all clad in long loose garments, like bathing-dresses, and many of them were sporting in the water as if it had been their native element. Some of these natives wore the simple tapa, thrown over their shoulders, which gave them a much more respectable appearance than those who were clothed in cast-off garments.

Every thing is earth-colour, with the exception of a few green blinds. The streets, if so they may be called, have no regularity as to width, and are ankle-deep in light dust and sand. Little pains are taken to keep them clean from offal; and, in some places, offensive sink-holes strike the senses, in which are seen wallowing some old and corpulent hogs. One of these, which was pointed out to us as belonging to the king, was tabooed, and consequently a privileged personage. The walk on shore, however, after so long a confinement to the ship, was agreeable.

On the 30th of September, the Peacock reached Oahu, all well. On parting company with the

Vincennes, Captain Hudson passed over the position assigned to a reef, by Captain Swain, in longitude $176^{\circ} 56' W.$, latitude $9^{\circ} 55' S.$, without seeing any thing of it, and continuing to the northward, crossed the line on the 27th of August.

The Porpoise arrived at Oahu on the 8th of October, all well.

Vatoo, or Turtle Island, as determined by the Porpoise, lies in latitude $19^{\circ} 50' S.$, longitude $178^{\circ} 37' 45'' W.$ It was found to be three miles long, by one and a quarter mile wide. The reef extends all around the island, and is from one and a half to two miles wide. The island contains about fifty inhabitants, who have native missionaries, and are Christians: they have but a scanty supply of food, and no water is to be obtained.

We met with a warm reception at the Hawaiian Islands. The governor, Kekuanaoa, kindly placed at my disposal the large stone house belonging to Kekauloohi, in the square where the tomb in which the royal family are interred is situated. The tomb was at that time undergoing some repairs. The state coffins, which are richly ornamented with scarlet and gold cloth, and in two of which the bodies of the late king, Liho-liho, and his wife were brought from England, in the frigate Blonde, were deposited in the house I was to occupy. The governor had them at once removed to the tomb, and in two days I was comfortably established, and engaged in putting up my instruments, and getting ready to carry on our shore duties.

It will now be necessary for me to enter into some particulars relative to the future operations of the squadron, in order to show the difficulties that had to be encountered at this part of the cruise. Before reaching Oahu, I was convinced that it would be altogether too late to attempt any thing on the north-west coast of America this year, and to winter there would have rendered us liable to contract diseases to which the men would have been too prone, after the hard service they had seen in the tropics; besides, I was averse to passing our time in comparative inactivity, and I wished to make the most of the force that had been intrusted to my charge. As my instructions had not contemplated such an event, I was left to my own judgment and resources, to choose the course which would prove the most beneficial to our commerce, and to science; I had also to take into account what we could accomplish in some other direction, prior to the end of April, when the season would become favourable for our operations on the north-west coast, and in the Columbia River.

On our way from the Feejees, various hints were thrown out that the times of the crew had expired, and that they would not reship. I understood their disposition, however, and had little apprehension of their being led astray by those who were disposed to create difficulties among them. Their time, in their opinion, would expire on the 1st of November; in my mind this construction was at least doubtful, the wording of the articles being, that "they shipped for three years from the 1st of November, 1837, to return with the vessels to a port of safety in the United States." The latter clause certainly contemplated the possibility of the expiration of the time prior to their return, and therefore the engagement was not limited to three

years; nor did it allow of my discharging any of them by paying them off in full, or of my crippling or retarding the duties of the expedition. Many of the men spoke very sensibly on the subject, and expressed a desire to finish the cruise, which they would be glad to do by reshipping, a course by which they would become entitled to one-fourth more pay; others again seemed desirous of producing discord, in which they were encouraged by the imprudent language of a few of the officers, whether with the intention of producing discontent, I know not. This indiscretion, however, was promptly arrested on its becoming known to me.

As I was obliged to make a deviation from the original cruise pointed out in my instructions, which would extend its duration, I thought it but just that new articles should be opened; and in order that all should be placed on an equal footing, I included the crew of the Porpoise, as well as all those who had joined the squadron previous to our last southern cruise. A large majority of the crew re-entered for eighteen months, on doing which they received three months' pay and a week's liberty. The few who declined, told me, that it was not from any dislike they had to the ship or service, but having families at home, they wished to avoid a longer separation from them. About fifteen of them took passage in vessels that were bound to the United States.

The character of sailors was oddly exhibited on this occasion; the man who, before arriving, had protested most strenuously that he would not reship, was the first to place his name on the roll, as I had predicted he would be; their conduct caused much amusement, and showed how little sailors know their own minds. Captain Hudson addressed his crew, confidently expecting that every man would volunteer to reship, and on his desiring all to pass to the other side who did not wish to reship, the whole crew passed over; yet within eight-and-forty hours they had all re-entered, with the exception of three or four, who held out for a time, to show, as they said, their independence.

It now became necessary to supply the places of those who had left the squadron, and thus to complete our effective complement. Instead, however, of resorting to picking up the worthless, dissipated, and worn-out vagabonds of all nations, who have been wandering from island to island for years, without any object or employment, I concluded to take a number of Kanakas, and enter them upon such terms that I could at any moment discharge them.

The authorities of Oahu were applied to through our consul, and readily agreed to the men being employed, provided they were returned to the island agreeably to their own laws. Articles of agreement were consequently entered into to this effect, by which I bound the government of the United States to return them after their services were no longer needed; and a stipulation was made that the rations of spirits should not be drawn by them. I was thus assured of having at least sober men. Word was sent to the different parts of the island for those who were disposed to enter, to assemble on a given day at the fort, under the authority of the governor. Upwards of five hundred men assembled in consequence, out of

whom Captain Hudson and myself chose about fifty, all able-bodied and active young men, in perfect health.

The authority for thus completing our complement of hands is contained in the Act of Congress of March the 3rd, 1813; the ninth section of which provides as follows: "That nothing in this act contained shall be construed to prohibit any commander or master, of a public or private vessel of the United States, whilst in a foreign country or place, from receiving any American seamen, in conformity to law, or *supplying any deficiency of seamen on board such vessel*, by employing American seamen or subjects of such foreign country, the employment of whom shall not be prohibited by the laws thereof." Yet, notwithstanding my acting under this ninth section, on my return home it was alleged that I had violated the first section of this same act, and it was made one of the charges against me by the Secretary of the Navy. The whole act is to be found in Story's Laws of the United States, vol. ii. p. 302.

It was highly necessary for the service I was engaged in, to enlist these men for a time; it was done according to law; all the circumstances were duly reported to the government in my next despatches, and my conduct was not objected to until the charges were made out against me.

I was now enabled to complete my plans of operation, and every exertion was made forthwith to put the vessels in condition for service, half of the crews being retained on board to proceed with the outfits, while the rest were on liberty.

The services on which I proposed to employ the vessels of the squadron, were as follows, viz.:

Captain Hudson, in the Peacock, accompanied by the tender, was to be instructed to return to the Samoan Group, and re-examine the surveys made by the Flying-Fish and boats, of the south side of Upolu, in which I had detected oversights, and suspected neglect; to seek for several small and doubtful islands, said to be under the equator, and to visit the little-known groups of Ellice and Kingsmill; to inquire into the fate of Captain Dowsett, commanding an American schooner engaged in the whale-fishery at the Pescadores; and to seek redress for the capture of the American brig Waverley, owned by Messrs. Pierce and Co., of Oahu, at Strong's Island.

Having by the arrival of the Porpoise learned the news of the murder of Gideon Smith at Upolu, I included in my orders to Captain Hudson, the duty of investigating the circumstances of the crime, and punishing the offenders. He was likewise instructed to seek for the magnetic equator in longitude 160° W., and to follow it down to the westward. These duties accomplished, I directed him, after visiting Ascension Island, to join me at the Columbia River, towards the end of the coming month of April.

These instructions covered a wide field, which had, as far as I could learn, been but little explored, and which our whaling fleet is continually traversing. To examine it could not fail to be highly useful to those engaged in that important branch of industry.

I designed to employ the Porpoise in a more close examination of some islands in the Paumotu Group or Low Archipelago, which it had not been

in my power to accomplish during our visit of the previous year. She was also to leave a party, with the boring apparatus, upon one of the islands, as soon as she reached the group, to remain there for about six weeks, or so long as the vessel was engaged in the examination of the other islands. This examination being completed, Lieutenant-Commandant Ringgold was directed to touch at Taliti, and thence, after surveying Penrhyn and Flint's Islands, to return to Oahu before the 1st of April.

With the Vincennes, it was my intention to proceed to Hawaii, there to ascend to the top of Mauna Loa; to make the pendulum observations on the summit and at the base of that mountain; to examine the craters and late eruptions; and after performing these duties, if time allowed, to proceed to the Marquesas Islands, and thence to pass along the magnetic equator to the meridian of the Hawaiian Islands, whither it was my intention to return before the 1st of April, to meet the Porpoise, and proceed, in company with her, to the north-west coast. I deemed the time from the 25th of November would be amply sufficient, with proper attention, to enable us to perform these duties, and also afford sufficient relaxation to the officers and men, from their long confinement on board ship.

The tender was overhauled in a few days, when Passed-Midshipman Knox was again put in charge of her, and the naturalists sent on an excursion to Kauai. After their return, I again despatched those who were attached to the Peacock in her to Hawaii, being desirous that they should have an opportunity of visiting as much of these islands as possible.

The king, Kamehameha III., who had given orders that he should be sent for as soon as the Vincennes arrived, reached Honolulu on the 29th September, from Maui. The next day I waited upon him, accompanied by our consul, Mr. Brinsmade, and by many of the officers and naturalists, at his quarters near the fort. A soldier dressed in a scarlet uniform stood on guard at the door. We were ushered into the audience-chamber, and presented to the king, whom we found seated in the midst of his retinue. The apartment was composed of two large rooms with low ceilings, communicating by folding doors. On the right of the king was Kekauloohi, a daughter of Kamehameha I., who acts as prime minister; and there were also present, among others, Kekuanaoa, the governor of Oahu, Mr. Richards, who is the king's interpreter and adviser, Haalilio, John Young, and the officers of the body-guard.

The king was dressed in a blue coat, white pantaloons, and vest. We afterwards understood that he had prepared himself to receive us in full costume, but on seeing us approaching in undress uniform, he had taken off his robes of state.

The appearance of the king is prepossessing: he is rather robust, above the middle height, has a good expression of countenance, and pleasing manners.

The person who attracted our attention most, was Kekauloohi. This lady is upwards of six feet in height; her frame is exceedingly large and well covered with fat. She was dressed in yellow silk, with enormously large gigot sleeves, and wore on her head a tiara of beautiful yellow feathers inter-

persed with a few of a scarlet colour*. Above the feathers appeared a large tortoise-shell comb, that confined her straight black hair. Her shoulders were covered with a richly-embroidered shawl of scarlet crape. She sat in a large arm-chair, over which was thrown a robe made of the same kind of yellow feathers as decked her tiara. Her feet were encased in white cotton stockings and men's shoes. She was altogether one of the most remarkable-looking personages I have ever seen.

The governor was handsomely dressed in a uniform of blue and gold.

The conversation was carried on with ease through the interpretation of Mr. Richards, and left upon our minds a favourable impression of the intelligence of the royal family of these islands. One thing was certain, namely, that, in regard to personal size, they are unsurpassed by any family that has ever come under my notice.

On the 2nd October, I received a visit from Mr. Richards, who communicated to me the desire of the king that I should visit him. In conformity with this request, I called upon him, accompanied by Captain Hudson. Although I had departed, after my first visit, highly prepossessed in his favour, I was not prepared to find him so easy and gentlemanly in his manners as he now appeared. He was alone when he received us, and in a few minutes we found that he was able to express himself very intelligibly in English, and was quick in comprehending what was said to him.

He was found at one end of the large grass-house built for him by the Governor Kekuanāoa. This building is about sixty feet long by forty feet wide, and contains only one room, which may, however, be divided by moveable screens into several apartments. The floor was covered with mats. The whole was well adapted to the heat of the climate, and the smell of the sweet-scented grass was agreeable and refreshing.

He received us in a friendly manner. From the representations that had been made to me, I had been led to believe that the king was not only dull of apprehension, but had little disposition to engage in or talk of the affairs of government; I found him, on the contrary, exhibiting an intimate acquaintance with them. He entered fully and frankly in the discussion of all the matters in relation to which disputes had arisen between him and foreign nations; and I, on the other hand, was desirous to elicit his views with regard to the difficulties he had for the last year or two encountered, and learn the feelings he had experienced in the arduous situations in which he had been placed.

He spoke of the manner in which foreigners had obtruded themselves into the affairs of his government, so that no one of its acts was permitted to pass without his being called, in a rude and uncivil manner, to account for it. He stated, that he found great difficulty in acting correctly; for foreigners, whom he and his chiefs had treated with every possible attention, had, from interested motives,

* These feathers are among the most celebrated productions of these islands, and some idea of their cost may be formed, when it is stated that each bird yields only a few, and that some thousands are required to form a head-dress. The birds (*melithreptes pacifica*) are taken by means of birdlime, made from the pisonia, and the catching of them is practised as a trade by the mountaineers. The wearing of these feathers is a symbol of high rank.

urged measures upon him which he knew to be wrong, and had, in many cases, abused the confidence he had placed in them. He expressed the strongest desire to do right, and to protect his people from evil influences and the encroachments of designing persons, by wholesome laws and regulations.

He said his consent had been extorted by threats, to measures of which he disapproved, and that there had been instances when he had been called upon to perform alleged promises which he had never given, for there were some of the foreigners who misrepresented every thing that took place in their interviews with him.

I at once pointed out a simple remedy for this, namely, that he should hereafter transact all business in writing, and have no verbal communication with people of this stamp, or indeed with any one; telling him that by keeping their letters, and copies of his own, he would always be in possession of evidence of what had passed. I assured him that I considered his government to have made sufficient progress towards a position among civilized nations to authorize him to require that official business should be carried on in this manner, and expressed my belief, that should he adopt this method, the "bullies" of whom he had spoken would give him no further trouble.

I now found that his principal object in requesting an interview with me was, that he might renew and amplify his treaty with the United States, for which purpose he thought it probable that I might have had instructions. When he found that this was not the case, and that I had no official communication for him, he was evidently disappointed; for he appeared most desirous to enter into a close friendship with the United States, and spoke in the highest terms of the kind manner in which he had ever been treated by our consul Mr. Brinsmade, and the commanders of the United States' vessels of war that had visited his islands. In conclusion, he intimated his hopes that the United States would acknowledge his people as a nation, and enter into a new treaty with him as its ruler.

All this was well and intelligently expressed by him, but the main subject of the conversation, which lasted for three hours, was his regret that he had ever permitted foreigners to interfere with his laws and municipal regulations, and had not rather allowed them to do their worst. The only justification he could offer to himself for his submission was, that by yielding he had saved much trouble and distress to others.

Saturday in Honolulu is a gala day, and all ages of both sexes devote themselves to amusement. Towards the afternoon, they may be seen wending their way towards the east end of the town, in every variety of costume, and borne along in every possible manner. All who have health enough must engage in this day's sport, and every horse is in requisition. The national taste, if I may so speak, is riding horses; and the more break-neck and furious the animal is, the better. Nicety of equipment is not thought of: any thing answers for a saddle and bridle, and as for stirrups, they are considered quite unnecessary. By four o'clock the crowd is well collected, and feats of horsemanship are practised, consisting generally in those involuntary tumblings that inexperienced riders are wont to indulge in. The great gathering is on the eastern

plain, the road to which is well covered with dust. The whole looks, when the crowd has possession of it, not unlike a rag fair, the predominant colour being yellow. They are generally well behaved, and the only sufferers are the poor horses, who are kept running, not races only, but for the amusement of the riders, whose great delight is to ride at full speed. At times there are races, in which case the crowd is increased by the addition of the foreigners, many of whom are in a state of intoxication. The uproar is proportionably great, and the natives are less conspicuous, their places being occupied by those whose morals and enjoyments are far from being as innocent. When his majesty and suite are present, much more order and decorum are observed, and the whole affords a pleasing and amusing sight. The returning throng is headed by the king and his party, after whom follow the crowd in a somewhat uproarious style; those on horses indiscriminately nixed, racing and hallooing; the fair riders being borne along, amidst clouds of dust so thick, that were it not for the rustling of flowing silks and tapas, one would be at a loss to know their sex. By the evening, all is again quiet, the streets are nearly deserted, and Sunday is ushered in with a decorum and quietness that would satisfy the most scrupulous Puritan.

I was much struck with the absence of sports among the boys and children. On inquiry, I learned, that it had, after mature deliberation and experience, been considered advisable by the missionaries to deprive them of all their heathenish enjoyments, rather than allow them to occupy their minds with any thing that might recall old associations. The consequence is, that the Hawaiian boys are staid and demure, having the quiet looks of old men. I cannot doubt that they possess the natural tendency of youth towards frolicsome relaxations; but the fear of offending keeps a constant restraint over them. It might be well, perhaps, to introduce some innocent amusements; and indeed I believe this has been attempted, for I occasionally saw them flying kites.

Among our other duties at this time, a court-martial became necessary. The services we were engaged in had rendered it impossible to convene one prior to our arrival here; and if it had not been for the imperative necessity of making an example in the case of two marines on board the Peacock, I should have been inclined still to defer it from want of time. Besides the two marines, there was an unruly fellow by the name of Sweeny, an Englishman, who had been shipped in the tender at New Zealand, and was at times so riotous on board my ship, that I determined to try him also. A court composed of the oldest officers of the squadron sentenced them "to be flogged at such time and place as the commander of the squadron might think proper." Understanding from our consul that the sailors of the whaling fleet, as is most generally the case, were disposed to be disorderly, and my interference having been several times asked for, I thought it a good opportunity to show the crews of all these vessels that authority to punish offences existed. I therefore ordered the sentence of the court to be put into execution publicly, after the usual manner in such cases; a part of the punishment to be inflicted at each vessel, diminishing very much its extent in

the cases of the two marines. At the time of the infliction of the punishment I received a letter from the most respectable portion of the crew, requesting Sweeny's discharge, and stating that he was a troublesome character. To insure his dismissal, they offered to pay all the debts he might owe to the government. As he had no claim on the squadron or flag, which, I was afterwards told, he had frequently cursed, and as he had been only six months in the squadron (having joined it with scarce a shirt to his back), I resolved to comply with the men's request, and sent him out of the squadron at once, with his bag and hammock, far better off than when he joined us. The ship became orderly again, having got rid of one of the greatest of the many rascals who are found roaming about Polynesia.

This act, together with the legal punishment of the marines for refusing to do duty, when their time of service had not expired, was another of the many complaints brought against me on my return.

The men's time of liberty having expired, they were again received on board, heartily sick of their frolic. They were remarkably orderly and well-behaved while on shore; and indeed the police is so efficient that it would have been impossible for them to be riotous, if so disposed, without finding themselves prisoners in the fort. I must here do Governor Kekuanaoa the justice to say, that he performs the part of a most excellent and energetic magistrate, and while he insists on others conforming to the laws, he is equally mindful of them himself. His fault, if he errs, lies in carrying them into effect too quickly and without sufficient examination.

Desirous of having as thorough an examination made of all the islands of the group as possible, and the repairs of the tender being completed, I put Mr. Knox in charge of her, and sent her with several of the naturalists to the island of Kauai, with instructions to land them, on their return, on the west side of Oahu, for its examination.

On landing at Koloa, they entered an extensive level plain, bounded by a ridge of mountains, and cultivated in sugar-cane and mulberries. Captain Stetson has an establishment here built of adobes, but these are not found to be adapted to the climate. The environs of Koloa afford some pasturage; the soil is good, though dry and very stony; the grass and foliage, however, looked luxuriant. About two miles from Koloa, Captain Stetson has his silk establishment, consisting of mulberry-grounds, cocoonery, &c.

Agreeably to instructions, the naturalists divided themselves into three parties—one, consisting of Dr. Pickering and Mr. Brackenridge, was to cross over the centre of the island, from Waimea to Halealea, observing the botany of the high ground; another, comprising Messrs. Peale and Rich, was to proceed along the coast on its eastern side; and the third party, Messrs. Dana and Agate, intended to pursue an intermediate course, to view the scenery, geological formation, &c. The schooner was in the mean time to make some examinations of the roadsteads and small harbours of the island.

There were two old craters near the beach, which were visited. Only a few trees were observed. On the low wet grounds are taro-patches

and fish-ponds. Among the few interesting plants were a species of daphne, a cleome, and some sidas. The garden of Captain Stetson contained several ornamental plants, brought from St. Catharine's, Brazil. The garden had a pretty appearance, being enclosed with a hedge of ti plants (*drecena*), set closely together, about five feet in height, topped with thin, wide-spreading leaves, while the walks were bordered with *psilotum* instead of box.

The mulberry trees do not produce well here, being subject to blight, and requiring great attention. This is thought to be owing to the dryness of the strong trade-winds that constantly blow, and which have parted with their moisture in passing over the high lands of Oahu, lying directly to windward.

The silk is reeled by native women. The specimens seen appeared of good quality, but were not reeled sufficiently fine, or with that attention to economy which is necessary to its profitable cultivation.

The sugar-mills of Ladd and Co. are said to be doing a good business. They are turned by water. The sugar is of a fair quality, and has been sold in the United States at a profit. The natives are induced to raise the sugar-cane, which is sometimes ground, or manufactured, on shares, and is also bought. The labour of the natives, in raising the cane, costs twelve and a half cents per day. This, however, is paid in paper currency, issued by Ladd and Co., redeemable at their store; consequently the price of the labour is no more than six and a quarter cents; for the sale of goods is really made in these islands under a profit of one hundred per cent. The want of a native currency is beginning to be much felt, both by the government and people; a fact that will tend to show the advance they have made and are making in civilization.

Dr. Pickering and Mr. Brackenridge set out on foot, the day after the tender arrived, along the southern coast, for Waimea, distant eighteen miles, in order to take the western route across the island. The whole distance between Koloa and Waimea was found to be a series of sunburnt hills and barren plains, sloping gradually from the base of the mountains to the ocean, and now and then intersected with ravines, or, as they are called in the Hawaiian Islands, "gulches." Only a few coarse grasses are met with, quite unfit for pasture.

At Waimea, the fort built by the Russians, under their absurd trade-master, Dr. Schoof, is still in existence. His ambition would have made him the proprietor of the whole island, although his only business was to take possession of the remains of the wreck of a ship belonging to the Russian Company, that had been lost in the bay. Several Russian vessels were afterwards sent there, which Schoof took charge of, by displacing their masters. It is said he made presents to Kamehameha I., and received in return a grant of land from him; some accounts say, the whole island! It is quite certain, however, that Kamehameha's fears were excited by the reports that were circulated from time to time, that the Russians, through Dr. Schoof's operations, intended to get such a foothold as to subvert his authority, and keep pos-

session of the island. With his usual promptness, he, in consequence, ordered the governor, Kaumuali, at once to send them all away. This was effected without any disturbance, and all the Russians embarked in a brig, in which they proceeded to Halelea, to join other Russian vessels that were lying there, and all departed together. As any intention of taking forcible possession, or colonizing the island, was shortly afterwards denied, in the most positive manner, by the Russians, it is probable that the whole was the work of a vain and ambitious man, who had suddenly found himself elevated above his own sphere. That he either wanted the inclination or the courage to carry out his conceptions, if he had any, is manifest, from his immediate acquiescence to the order of the chief to quit the island. He is now known at the islands under the appellation of the Russian Doctor, although by birth a German. The Russian Stone Fort, as it is now called, is garrisoned by a guard of natives.

Waimea offers the best anchorage at this island, except in the months of January and February, when the trades are interrupted, and the wind blows strong from the south-west, and directly on shore.

About a mile west of Waimea is the spot where the first English boat landed from Cook's expedition. The village of Waimea takes its name from the river, which rises in the mountains, and after a course of about fifteen miles, enters the sea there. It is navigable three-fourths of a mile from its mouth, in boats. The water is used for irrigating the valley, and might also be appropriated to manufacturing purposes, as there are many excellent mill-seats, and a steady supply of water for such purposes.

The island of Niihau was not visited by any one belonging to the squadron; but it seems proper that in giving an account of the Hawaiian Islands, it should be spoken of. It is situated sixteen miles south-west of Kauai, and is eighteen miles long by eight broad. There is an anchorage on its western side, but no harbour. Its eastern side is rocky and unfit for cultivation; the inhabitants therefore reside on its western side, on the seashore, and are for the most part miserably poor. They cultivate, principally, yams and sweet-potatoes, the former of which succeed much better here than at any of the other islands. Water is very scarce, and they suffer occasionally from droughts, from which cause they are not able to raise the taro. This island is celebrated for the beautiful mats manufactured by its women. It is also said to be a favourable place for the manufacture of salt. The number of inhabitants is one thousand.

On the 3rd of November, the tender reached Rawailoa, in Waialua district, and the naturalists were landed on the western side of Oahu. It was near this place that Mr. Gooch, who accompanied Vancouver, was killed by the natives. Here the party again divided, to explore the island of Oahu, on their way to Honolulu.

On the 16th, the Porpoise, under Lieutenant-Commandant Ringgold, sailed to the Low Archipelago, or Paumotu Group, with instructions to return to the harbour of Honolulu by the 15th of March.

CHAPTER XXVIII.

HAWAIIAN GROUP, OR SANDWICH ISLANDS—(CONTINUED).

THE TENDER IS DESPATCHED TO HAWAII—CRUISE OF THE TENDER TO HAWAII—BAY OF KEALAKEAKUA—WESTERN COAST OF HAWAII—PLACE WHERE CAPTAIN COOK WAS KILLED—SOUTH-WEST SIDE OF HAWAII—GOVERNOR ADAMS—EXCURSION OF THE NATURALISTS—ANCIENT TEMPLE OF KAILI—RETURN OF THE NATURALISTS—PLAN FOR THE FURTHER OPERATIONS OF THE SQUADRON—THE VINCENNES SAILS FOR HAWAII—HILO BAY—ISLAND OF HAWAII—MOUNTAIN OF MAUNA LOA—VILLAGE OF HILO—ASCENT OF MAUNA LOA—DESCRIPTION OF THE PARTY—VOLCANO OF KILAUEA—APPEARANCE OF THE CRATER—SUMMIT OF MAUNA LOA—PENDULUM PEAK.

SHORTLY after our arrival, orders were given to be ready for sea by the 11th of November, at which time it was my desire that we should again be on active duty. Finding, after the return of the tender from Kauai, that the Vincennes and Peacock would necessarily be detained beyond this time to complete their repairs, and wishing to afford the naturalists belonging to the Peacock an opportunity of visiting Hawaii, I gave Messrs. Peale, Rich, and Dana orders to rejoin the tender on the 10th of November. I also gave Mr. Knox instructions to proceed direct to Kealakeakua Bay, to land them there, and to be again ready to receive them in a week afterwards at Hilo Bay, on the opposite side of the island. The party would thus be enabled to cross the island, which I had no hopes of being able to accomplish with the naturalists attached to the Vincennes, as I believed we should all have enough to occupy us fully in the contemplated trip to the top of the mountain, and the examination of the volcanic eruptions. On the same evening at 10 P.M., they went to sea, sweeping out of the harbour, and proceeding on their trip.

In the mean time our preparations for duty were actively progressing. The Porpoise sailed on the 16th of November, under orders for the Paumotu Group.

Preparations were making on board the Vincennes for our trip to the mountain. Dr. Judd, of the mission, at my solicitation, consented to accompany me, as did also Mr. Brinsmade, our consul.

On the 24th, all were ordered to join the ships. The tender, agreeably to her orders, returned on the 28th, and the launch of the Peacock being ready, was taken on board on the 29th of November.

Before taking up the cruises of the ships, however, I shall give an account of the tender's trip to Hawaii.

Detained by calms and light winds, they did not reach the bay of Kealakeakua until ten o'clock at night, when, having obtained the guidance of some fishermen, they anchored in the dark.

This bay derives its name (path of the gods) from a slide in the hill, which is still visible, which the gods are said to have used in order to cross the bay quickly. It is of no great extent, and opens between two low and barren hills, on each of which a town is situated.

Between them a high perpendicular bluff rises directly from the water, in which are seen numerous caves: in these the natives formerly buried their dead, and still use occasionally for the same purpose. These caves appear inaccessible, and are the resort of vast numbers of birds.

On the 14th (Saturday), they landed at Napolo, and were kindly received by Mr. Forbes, the resident missionary for the district of Kealakeakua. They were greatly disappointed when they found it would be impossible to proceed on their tour that day, and that their departure would have to be deferred until Monday, as it would be impossible to prepare the food necessary for the journey in a day, and the next being Sunday, no natives could be persuaded to travel until Monday. On the nights of their stay with Mr. Forbes, they distinctly saw the heavens lighted up by the fires of the volcano of Kilauea Pele, although at the distance of forty miles. This mission station is on the west side of Hawaii, and on the south side of the bay of Kealakeakua.

Almost the whole coast of this district, extending forty miles, is one line of lava. This frequently lies in large masses for miles in extent, and is in other places partially broken, exhibiting perpendicular cliffs, against which the sea dashes with fury. This formation extends half a mile into the interior, and as the distance from the sea increases, the soil becomes richer and more productive. The face of the country, even within this rocky barrier, is rough, and covered with blocks and beds of lava, more or less decomposed. The land in places reaches the altitude of two thousand feet, and at a distance of two miles from the coast begins to be well covered with woods of various kinds of trees, which are rendered almost impassable by an undergrowth of vines and ferns. In these woods there are many cleared spots, which have the appearance of having been formerly cultivated, or having been burnt by the descending streams of lava. In some places, these strips of wood descend to within a mile of the shore, having escaped destruction. These are in no place parallel to the shore, but lie always in the direction which the streams of lava would take in descending from the mountains.

Our gentlemen, during their detention, crossed over to the north shore of the bay of Kealakeakua, to visit the place where Captain Cook was killed. The natives pointed out the spot where he fell, which was on a rock, the most convenient for landing of any in the vicinity, as it is somewhat protected from the swell by a point of lava rocks. Within a few yards there is a stump of a cocoa-nut tree, at the foot of which he is said to have breathed his last. The top of this tree had been cut off and carried to England by H.B.M. ship *Imogene*. It is now treasured up in the museum of Greenwich Hospital, which I cannot but feel was an appropriate disposition of it, calculated to recall his memory to the

minds of the thousands who view it, and inspire in them the feeling of proper pride, in finding that the country appreciates so remote an emblem of their distinguished countryman.

On the stump of the tree is inscribed :



NEAR THIS SPOT
FELL
CAPTAIN JAMES COOK, R.N.,
THE
RENOWNED CIRCUMNAVIGATOR,
WHO
DISCOVERED THESE ISLANDS,
A. D. 1778.
HIS MAJESTY'S SHIP
IMOGENE,
OCTOBER 17TH, 1837.

THIS SHEET OF COPPER AND CAPPUTON BY SPARROWHAWK,
SEPTEMBER 13TH, 1839,
IN ORDER TO PRESERVE THIS MONUMENT TO THE
MEMORY OF COOK.

I could have wished that the first inscription, relating solely to Cook, was the only one; the other, it seems to me, was not worthy of being associated with any thing connected with so great a name; and good taste and proper feeling I think would have shrunk from inscribing it as well as the following on another part, "*Give this a coat of tar.*"

The south-west side of Hawaii is termed the district of Kona, and includes Kealakeakua and Kailau. The town of Kailau is the residence of Kuakini, better known among foreigners by the name of Governor Adams, who is governor of Hawaii.

This district lies to the north of Kealakeakua, and begins about five miles from Napolo. It is similar to it in character, but the lava is of more recent formation, the eruptions from Hualalai having flowed down and covered nearly the whole northern portion. This eruption happened about thirty years since, in 1809 and 1810. Hualalai is between seven and eight thousand feet in height, and rises abruptly on its west side.

Rain seldom falls on the coast, except in showers, and a rainy day once in the year is looked upon as something remarkable. This, together with the absence of all dew, prevents the existence of much cultivation; it affords, nevertheless, a coarse vegetation, sufficient to pasture a few hundred goats; but, a mile back from the shore, the surface is covered with herbage, which maintains cattle, &c.; and two miles in the interior there is sufficient moisture to keep up a constant verdure.

The dwellings of the natives are a little improved, and Governor Adams has the best-built stone house in the Hawaiian Islands. He has also a cotton factory constructed of stone, and by his influence there has been erected a large stone church and a school-house. He also gives much attention to the schools, and has twenty-three in his district for adult scholars, who are six or seven hundred in number; and thirteen for children, with about five hundred pupils: all of these are taught by natives. To these is to be added a school for girls, taught by the ladies of the mission, numbering fifty-five scholars.

Governor Adams, like all individuals of his class

who are desirous of improving his countrymen, is represented by the low foreigners to be of a miserly and grasping disposition, and they say that he has acquired large stores of wealth, which he hoards up. He is certainly much respected by all those not engaged in trade, and spoken highly of by the natives over whom he rules. He is admitted, however, by both foreigners and natives, to be one of the most shrewd and intelligent of the nation, and desirous of turning all things to account, competing even with foreigners. I had not the pleasure of meeting with him, of which I was desirous; for, owing to our unexpected detention at Oahu, we did not reach Hilo so soon as we had intended, and he was obliged to return to his home on the opposite side of the island. Being a man of large dimensions, as the chiefs usually are, he was deterred from performing so toilsome a journey again during our stay.

On Monday, our gentlemen formed themselves into two parties, and started on horseback for their journey. One party consisted of Messrs. Peale, Rich, and Hall, with eight Kanakas and two guides; Mr. Dana and Midshipman Hudson, with Kanakas and guides, formed the other, which took the route along the sea-shore towards the south, well provided with provisions, and a supply of various articles for their journey.

After a day's travel, they reached the site of the ancient temple of Kaili. These ruins lie about equally distant from three mountains, Mauna Kea, Mauna Loa, and Hualalai. This temple is said to have been built by Umi, who, with his wife Papa, is supposed to have inhabited it, when he was king of the island. The three northern pyramids forming the front were originally erected by Umi, to represent the districts of the island he then governed; and as he conquered other districts, he obliged each of them to build a pyramid on the side of the temple. The main building is ninety-two feet long, by seventy-one feet ten inches wide; the walls are six feet nine inches high, seven feet thick at the top, and nearly perpendicular. The building is said to have been covered with idols, and offerings were required to be brought from a great distance, consisting generally of provisions. There are now no traces left of these idols. The situation of the temple is at an elevation of five thousand feet above the sea.

At Hilo on the 23rd, the naturalists embarked on board the Flying-Fish, which sailed for Oahu, and reached Honolulu on the 28th of November.

The squadron was now on the eve of sailing, having on board stores and provisions for a long cruise. As this winter's cruising was particularly intended to examine the portion of ocean that was not included in my instructions, I shall, before narrating the details of the proceedings of the squadron, give, in a general view, the intended operations.

The movements of the squadron were, at this time, particularly directed to the examination of parts of the ocean possessing great interest in their connexion with that important branch of national industry, the whale-fishery; and the course I proposed to adopt will be understood from the following statement of the objects I now had in view.

The Porpoise had previously been sent towards the Paumotu Group, or Dangerous Archipelago, lying to the eastward of Tahiti, to examine some islands that were reported as doubtful, and others

whose position were not well ascertained. She was also to leave a party on one of them, to bore through the coral rock, the expedition having been provided with an apparatus for that purpose. Thence she was to proceed to Tahiti, and from Tahiti towards Penrhyn and Flint's Island; and return to Oahu by the end of March, 1841.

The Peacock, with the Flying-Fish as tender, I designed should visit and examine the location of several of the doubtful islands, passing along the magnetic equator westward from the meridian of 160° W.; thence to a small group of islands in longitude 174° W., which I had partly examined in the Vincennes, and had found some new islands among them; these I had called the Phoenix Group. Thence the Peacock was to proceed to search for the Gente Hermosas of Quiros, or the islands reported to me at Upolu, when I was there in 1839, as existing to the north-east; thence to Upolu, to re-survey the south side of the island, not having been able to satisfy myself with the former survey of it. From Upolu the Peacock and Flying-Fish had directions to sail to Ascension Island, and from thence to the north-west coast of America, to rendezvous with the rest of the squadron at the Columbia River, in the latter end of April.

The Porpoise sailed on the 16th November, 1840, and the Peacock and Flying-Fish on the 2nd of December.

The Vincennes sailed for the harbour of Honolulu for Hawaii on the 3rd December with Mr. Brinsmade our worthy consul and Dr. G. P. Judd on board.

During our progress to Waiakea, or Hilo Bay, we had light variable winds, with heavy dews at night. On the 8th we made Mauna Kea, then about fifty miles distant, subtending an angle of two degrees: it was capped with snow. As we approached the island, we had, also, a view of Mauna Loa, with the cloud resting over the volcano of Kilauea, the scene of our future adventures.

Hilo Bay is indifferently protected from the sea, and is almost an open roadstead. It has, however, an extensive sunken coral reef to seaward, which is too shoal to allow of the passage of vessels over, and affords some protection against the rolling sea; a vessel therefore usually lies quiet, unless it is blowing strong outside. There is no danger in entering the bay; all that is required is to avoid the west point of the reef, and on passing it to haul to the southward. We found the best anchorage on the east side of the bay, where Cocoa-nut Island and the most eastern point are in range.

In sailing towards Hilo Bay, Hawaii has but few of the characters that indicate a volcanic origin. In this respect it resembles Savaii, in the Samoan Group; and the resemblance has been the cause of what is in fact the same name having been given to both. The two words differ no more in spelling and sound, than has arisen from the long separation of two families of the same race and language. Many of the points and headlands present a like similarity in name, and strengthen the conviction of the common origin of the inhabitants of the two groups.

To one unacquainted with the great height of the mountains of Hawaii, this island might appear of comparatively small elevation, for its surface rises gradually from the sea, uniform and unbro-

ken; no abrupt spurs or angular peaks are to be seen, and the whole is apparently clothed with a luxuriant vegetation.

The scene which the island presents as viewed from the anchorage in Hilo Bay, is both novel and splendid: the shores are studded with extensive groves of cocoa-nut and bread-fruit trees, interspersed with plantations of sugar-cane; through these, numerous streams are seen hurrying to the ocean; to this succeeds a belt of some miles in width, free from woods, but clothed in verdure; beyond is a wider belt of forest, whose trees, as they rise higher and higher from the sea, change their characters from the vegetation of the tropics to that of polar regions; and above all tower the snow-capped summits of the mountains.

From this point of view, Mauna Kea, distant about thirty-five miles, has the appearance of being by much the highest mountain on the island; while Mauna Loa, distant sixty miles, and rounded at its summit to the shape of a regular dome, requires an effort of reason to satisfy the observer that it really has as great an elevation. A conviction that this is the case may be reached by tracing with the eye the edge of the forest that encircles both mountains, and noting how large a portion of the dome of Mauna Loa rises above the woody region.

No snow was visible to the naked eye on Mauna Loa, but with a telescope it was seen scattered here and there on its rounded summit. The appearance of this mountain is so deceptive, that one would not suppose it to have half its real altitude; and it might easily be passed unnoticed, so unpretending is its aspect. From Hilo, Mauna Loa looks as if one might walk over its smooth surface without difficulty; there is, indeed, so much optical deception in respect to this mountain, that it served to give us all great encouragement, and we set about making our preparations with a determination to succeed in the attempt to reach its highest summit. The position of the crater of Kilauea was denoted by the silvery cloud which hangs over it by day; which, as evening closed in, was, by the glare of the fires burning beneath, made visible throughout the night.

My time was now actively employed in establishing the observatory at Waiakea Point, for rating the chronometers, and in arranging the instruments to carry on simultaneous observations with our mountain party. I had also a house built after the native fashion, in order that some of the officers might be engaged upon the charts.

Waiakea Point is situated on the opposite side of the bay from Hilo. The distance between them is a little more than a mile, and the path leads along a sandy beach, on which the surf continually breaks, and at times with great violence.

Hilo is a straggling village, and is rendered almost invisible by the luxuriant growth of the sugar-cane, which the natives plant around their houses. A good road has been made through it for the extent of a mile, at one end of which the mission establishment is situated. This consists of several houses, most of which are of modern style, covered with zinc and shingles. One of them, however, the residence of the Rev. Mr. Coan, was very differently built, and derived importance in our eyes, from its recalling the associations of home. It was an old-fashioned, prim, red

Yankee house, with white sills and casements, and double rows of small windows. No one could mistake the birthplace of the architect, and although thirty degrees nearer the equator than the climate whence its model was drawn, I could not but think it as well adapted to its new as to its original station.

On our way to Mauna Loa we passed the hill described by Lord Byron's party, which it would have been difficult to recognise had it not been pointed out, on account of its gradual rise. This hill afforded a magnificent view of Hilo Bay, and of the surrounding country below us.

Six miles from Hilo we entered the first wood, and at 6 P.M. we passed, at eight miles distance, the chasm that divides the Hilo from the Puna district. As the darkness set in, we began to experience the difficulties we had anticipated: the bustle and noise became every moment more audible along the whole line as the night advanced: what added not a little to our discomfort, was the bad road we now had to encounter, rendered worse as each native passed on in the tracks of those preceding him, until at last it became in places quite miry.

We continued on, however, until we found most of the natives had come to a stand, and were lying about among the grass by the roadside near a few grass-houses. One of these was hired for our accommodation and to protect us from the heavy dew, to which the natives seemed accustomed: here we proposed to stay until the moon arose, and in the interim to get what little rest we could.

After it became sufficiently light we again set out with a part of our host. The cloud of the volcano of Kilauea lay before us like a pillar of fire, to guide us on our way.

It will scarcely be possible to form a full idea of our company: that of my Lord Byron is described as a sort of triumphal procession; ours was very different from this, and was more allied to a May-day morning in New York, or a vast caravan, consisting, as it did, of two hundred bearers of burdens, forty hogs, a bullock and bullock-hunter, fifty bearers of *poe* (native food), twenty-five with calabashes, of different sizes and shapes, from two feet to six inches in diameter. Some of the bearers had large and small panels of the portable house on their backs; others, frying-pans or kettles; and others, tents or knapsacks. Then there were lame horses, which, instead of carrying their riders, were led by them; besides a large number of hangers-on, in the shape of mothers, wives, and children, equalling in number the bearers, all grumbling and complaining of their loads; so that wherever and whenever we stopped, confusion and noise ensued. I felt happy in not understanding the language, and of course was deaf to their complaints. It was very evident that the loads were unequally divided; and I must do the natives the justice to say, they had reason to complain, not of us, but of each other. It was impossible for the thing to be remedied at once, although it was not a little provoking to see several natives staggering under their loads, while one or two would be skipping along with a few pounds' weight only.

Leaving Olaa, at a height of eleven hundred and thirty-eight feet above the level of the sea, we had no distinct path to follow; for the whole surface

became a mass of lava, which retained all its metallic lustre, and appeared as if it had but just run over the ground—so small was the action of decomposition. There were only a few stunted bushes on our track; but some dense patches of wood were observed on the right. The day was warm, with a bright sun; and when we passed pools of water standing in the lava rock, as we frequently did, the natives would rush into them like overheated dogs, and seemed to enjoy the temporary coolness brought about by the evaporation.

At 3 P.M. we reached Kapuauhi, which consists of a few houses, and is about fifteen miles from Olaa. The temperature, on our arrival, was found to be 80° in the shade, while in the sun it stood at 84°; the whole extent around was black lava; indeed there was no place where we could pitch a tent of six feet by eight, and as it looked like rain we concluded to occupy one of the houses that was offered to us; but it taught us a lesson we remembered for some time, for all our blankets and clothes became infested with fleas, and those of the most voracious kind.

The height we had now attained was two thousand one hundred and eighty-four feet; the thermometer, 72°; the lowest temperature in the night, 58°.

At 8 A.M. we left Kapuauhi, or what our company called "Flea Hall," after having passed a most comfortless night. Nothing could be more annoying than the swarms of fleas that attacked us, and I believe all the native houses are thus unpleasantly infested. In about three hours we reached the Okea tree, known as the boundary of the territory of Pele, or the goddess of the volcano. In bygone days no native dared venture beyond it without an offering to Pele, under penalty of her vengeance.

Soon after we left Kapuauhi, we met with soil formed upon the lava by volcanic ashes; the bushes became thicker and more thrifty, rising into small trees; quantities of strawberry-vines were perceived, but the natives searched in vain for some straggling fruit. The time for its bearing had passed, but they are said to be found in great abundance, and of very fine flavour, at the proper season. Okea was the principal wood, and there was some koa (acacia). A curious plant was pointed out, the sap of which blisters the skin, and with which the inhabitants produce a sort of tattooing in large and small round lumps. I did not learn how durable they were. This plant is called mau-a-laili.

Just as we reached the great plain of the volcano, we approached the southern limit of the wood, and, on turning its corner, Mauna Loa burst upon us in all its grandeur. The day was extremely fine, the atmosphere pure and clear, except a few flying clouds, and this immense dome rose before us from a plain some twenty miles in breadth. I had not, until then, formed any adequate idea of its magnitude and height. The whole dome appeared of a bronze colour, and its uninterrupted smooth outline was relieved against the deep blue of a tropical sky. Masses of clouds were floating around it, throwing their shadows distinctly on its sides, to which they gave occasional relief and variety. There was a bluish haze resting on the plain, that apparently gave it great

distance, though this was partially counteracted by the distinctiveness of the dome. I now, for the first time, felt the magnitude of the task I had undertaken.

So striking was the mountain, that I was surprised and disappointed when called upon by my friend, Dr. Judd, to look at the volcano of Kilauea; for I saw nothing before us but a huge pit, black, ill-looking, and totally different from what I had anticipated. There were no jets of fire, no eruptions of heated stones, no cones, nothing but a depression, that, in the midst of the vast plain by which it is surrounded, appeared small and insignificant.

We hurried to the edge of the cavity, in order to get a view of its interior, and as we approached, vapour issuing from numerous cracks showed that we were passing over ground beneath which fire was raging. The rushing of the wind past us was as if it were drawn inwards to support the combustion of some mighty conflagration.

When the edge is reached, the extent of the cavity becomes apparent, and its depth became sensible by comparison with the figures of some of our party who had already descended. The vastness thus made sensible transfixes the mind with astonishment, and every instant the impression of grandeur and magnitude increases. To give an idea of its capacity, the city of New York might be placed within it, and when at its bottom would be hardly noticed, for it is three and a half miles long, two and a half wide, and over a thousand feet deep. A black ledge surrounds it at the depth of six hundred and sixty feet, and thence to the bottom is three hundred and eighty-four feet. The bottom looks, in the daytime, like a heap of smouldering ruins. The descent to the ledge appears to the sight a short and easy task, but it takes an hour to accomplish.

We pitched our tents in full view of the volcano, and sat on its northern bank for a long time in silence. We succeeded in reaching the second ledge, though the way to it is steep, rugged, and uncertain. At the edge of the pool, or lake of fire, the light was so strong that it enabled me to read the smallest print. This pool is fifteen hundred long by one thousand feet wide, and of an oval figure.

I was struck with the absence of any noise, except a low murmuring, like that which is heard from the boiling of a thick liquid. The lake was apparently rising, and wanted but a few feet of overflowing its banks. When I began to reflect upon the position we were in, its insecurity, and the vast and deep fires beneath, with the high basaltic walls encompassing us on all sides, I found it difficult to comprehend how such a reservoir can thus be pent up, and be viewed in such close proximity, without accident or danger. The whole party was perfectly silent, and the countenance of each individual expressed the feeling of awe and wonder which I felt in so great a degree myself, and which the scene was so well calculated to excite.

No one can see all this and yet doubt the theory of the igneous fluidity of the centre of the earth. All combustible causes that we are acquainted with are totally inadequate to produce such an effect. The whole seemed boiling up like a fountain, differing only in density and colour.

We returned to our tents towards midnight, much fatigued, but found sleep impossible after the excitement of such a scene.

The day we remained at the volcano was employed by the natives in preparing their food, by boiling it in the crevices on the plains from which the steam issues; into these they put the taro, &c., and close the hole up with fern-leaves, and in a short time the food was well cooked. All the water for drinking is obtained here by the condensation of the stream, which gathers in small pools, and affords a supply of sweet and soft water. From the numbers in the camp who used it, this supply became rather scanty, but it did not entirely give out.

The crater, at night, was extremely beautiful, and we sat for a long time watching its changing and glowing pool. The shadows thrown by the walls of the crater seemed to reach the heavens, and gave it the appearance of being clothed in a dark cloud; but on looking at it more attentively, and shutting off the glare of the crater, the stars were perceived shining brightly.

About four o'clock a loud report was heard from the direction of the boiling lake, which proved to have been caused by a large projecting point of the black ledge near the lake having fallen in and disappeared.

The lowest temperature, during the night, was 48°. There was a light wind and no dew.

At dawn on the morning of the 18th, the signal called us to make preparations for our journey, and as all things had now been more systematically arranged, we anticipated less difficulty in our onward journey. The natives seemed to be all in good spirits, and moved with alacrity.

Our camp hitherto (as all camps are) had been beset with hangers-on, in the shape of wives, mothers, and children, who were not only much in the way of those to whom they belonged, but were great consumers of the food the natives had supplied themselves with for the journey. As we already entertained apprehensions of a scarcity, prompt measures were taken by Dr. Judd to get rid of our troublesome guests, which we succeeded in doing, though not without some difficulty, and a low monotonous growling, that indicated much displeasure on the part of the fair sex.

The divisions now set off, and our host was less mob-like, partly owing to the impossibility of going in squads, the paths having become more contracted.

The water that I have mentioned as being found in the small pools, the product of condensation, was exhausted before we left the crater. This was in consequence of the natives having filled their calabashes; and we had particularly instructed our servants and the sailors to do the same. The former provided themselves; but the latter, sailor-like, preferred to take their chance of meeting with it on the road, rather than carry a load for their future supply. I discovered, after we started, that they were unprovided, but was informed that there was, within about two miles, an old canoe which would be found full of water. On our arrival at it, we found that the natives, who had preceded us, after supplying themselves had emptied out the rest.

Our route was taken at first and for a few miles in a due west line, for the top of Mauna Loa, over

the extensive plain surrounding the volcano; it then deviated to the southward, over an ancient lava-bed, very much broken, that appeared never to have been traversed before. We now became for the first time acquainted with clinkers. To describe these, it is merely necessary to say, they are like the scoria from a foundry, only instead of being the size of the fist, they are from one to ten feet square, and armed on all sides with sharp points; they are for the most part loose, and what makes them still more dangerous, is that a great deal of the vitreous lava is among them. There never was more difficult or unpleasant ground to travel over.

Our guide Puhano of Puna, who we understood had accompanied Douglass and Lowenstern on their ascents, now took the lead, but it soon appeared that he knew little of the route. I therefore, in company with Mr. Brinsmade, took the lead, compass in hand; and after walking over the broken and torn-up ground, we turned again towards the hill-side, and began a rapid ascent through a belt of long grass, where the rock was covered with white clay, and seldom to be seen. This part appeared to have suffered much from drought; for in passing along we came to several narrow and dry water-courses, but met with no water.

At two o'clock we had nearly reached the upper limit of the woods, and as the clouds began to pass over, and obscure the path, we determined to halt and encamp. We made several fires along the route, in order to guide those behind, and as a mark for the stragglers; bushes were also broken off, and their tops laid in the direction we were going, by the natives; and I likewise had the trees blazed, as a further indication, well known to our men. Chronometer sights were taken here, and the altitude by barometer was five thousand and eighty-six feet.

During the day, the reason that had induced the natives to empty the water out from the canoe, became evident in their anxiety to sell us water. My friend the consul had hired an especial bearer for his calabash of water, determining that he would have a sufficient supply. By our watching and cautioning the old man who had it in charge, he became somewhat alarmed and unsteady, as I thought also from fatigue. When he had arrived within a short distance of the camp, he stumbled on a smooth place, fell, and broke the calabash into numerous pieces. Those who were coming up, seeing the accident, rushed to partake of its contents, but the fluid quickly disappeared in the loose and absorbent lava. This was a dreadful blow to my friend's feelings, and produced much laughter among us, in which the consul himself at length joined; although I must confess I was somewhat of his opinion, that it had been done designedly, either to secure the sale of that belonging to others, or to get rid of the load, which had been a great annoyance and trouble to the bearer all day, and for which he had already been paid.

At sunrise on the 19th, we had the temperature at 48°.

As the ascent was now becoming laborious, we selected and left the things we had no immediate use for, to follow us by easy stages. We then took a diagonal direction through the remaining portion of the woods. By one o'clock we had lost

all signs of trees, and were surrounded by low scraggy bushes: the change of vegetation became evident, not only in species, but in size; we also passed through extensive patches that had been destroyed by fire. Sandalwood was seen, not as a tree, but a low shrub.

During the day we had passed extensive caves, in all of which I had search made for water. These often lead a long distance under ground, and some of the men passed in at one end and out at another.

Intending to stop on Sunday not far above these caves, calabash tops were left in one or two where water was found to be dropping, in hopes by this means to procure a small supply; but on returning the next day, it was found that very little had accumulated.

Between two and three o'clock, we again became enveloped in clouds, and it was necessary for us to redouble our precautions against losing the track. Fires were again resorted to, which at short distances could be seen in the intervals of mist.

Deeming it advisable to make an early halt, we stopped shortly after three o'clock, to allow all the baggage to come up. Notwithstanding the size of our party, there was no perceptible tract left or any thing by which to be guided, but the smoke of the fires, or occasionally a broken shrub, as a finger-post. All the ground was hard metallic-looking lava, and around nothing but a dreary waste. The voice too became fainter, as the atmosphere grew more rarefied. Our encampment was called the Sunday Station, on account of our having remained quietly here on that day. The altitude given by the barometer was six thousand and seventy-one feet, at which we found ourselves above the region of clouds, and could look down upon them.

At night, on pulling off my clothes, I noticed the quantity of electrical fluid elicited, which continued for some time to affect the objects about me, particularly a large guanaco-robe I had to sleep in.

This afternoon, we found that it would be impossible to drive the bullock any further; for the animal began to suffer from fatigue and the want of water, our supply of which was almost exhausted; he was accordingly killed. The natives were now hawking water about the camp at half a dollar the quart. I am not aware that they sold any at that extravagant price; but I saw some of them in possession of handkerchiefs and old shirts, which I understood had been given for it.

Ragsdale, one of our guides, who had been despatched to Papapala from the crater to purchase provisions, now joined us, with two more guides. He brought information that he had obtained forty goats, and that we should receive full supplies. This was encouraging news, for I felt somewhat doubtful from the first in relying on the natives, and their behaviour at Kilauea was not calculated to raise my opinion of them. I found also, as we ascended the mountain, that even light loads had become heavy, and those of any weight, insupportable; that our time was rapidly passing, and we had a long way yet before we reached the summit; and that the native food was nearly exhausted, while the supply for our own men was rapidly consuming.

The two guides that Ragsdale brought with him, were perfectly familiar with the mountain. One

of them was a celebrated bird-catcher, called Keaweehu, who had been the guide of Lowenstein, and knew where water was to be obtained; but it was ten miles distant. He said, that if he was furnished with calabashes and natives to carry them, he would be able to bring us a supply by the afternoon, if he left before the day dawned; and that it would be two days before we could get any snow, even if it were found on the mountain. It had never crossed my mind, that there was any probability of this latter resource failing us; I had in truth relied upon it with confidence, and concluded that in the event of only one snow-storm we should be enabled to find some place for a deposit, to save enough water for all our wants.

We now numbered nearly three hundred persons in camp, with but a few small calabashes containing five or six gallons of water; and all, more or less, felt the effects of the rarefied air.

Old Keaweehu told us that we had taken the wrong road to the mountain, and that Puhanu was not at all acquainted with the right road,—a fact we had long before discovered; that if we had come by way of Papapala, he would have been able to conduct us by a route we should have found water every few miles.

The 20th, being Sunday, was a day of rest: the natives requested that it might be so, and I readily yielded to their wishes. I was anxious, however, to ascertain the state of the mountain, and whether there was any snow to be had on its top, for I now felt satisfied that the want of water would prove the greatest difficulty I should have to encounter, in remaining there as long as I intended.

Lieutenant Budd received orders to set out with a few attendants at daylight; but after making his preparations, and having all things ready, the natives refused to accompany him on account of its being Sunday, as they said. I am, however, inclined to believe that fear had something to do with it, for they never knew of any one having gone up this mountain before, and thought me mad for taking so much trouble to ascend it. They said that I must be in pursuit of gold and silver, or something to sell for money, as I never would take so much trouble, and spend so much money, unless it were to acquire great riches.

In the evening we were much gratified at receiving fifteen gallons of water, which the natives had brought ten miles in open-mouthed vessels, over the rough mountain roads: this they do by placing some fern-leaves on the top of the water, when it carries as well as a solid, and will bear much agitation without spilling. Though a very small supply for our necessities, it was a great satisfaction to know that it was now within reach of us. Partially relieved from this pressing difficulty, our attention was turned to the fuel, and I at once saw the necessity of providing some means for procuring a supply, as we were now at one of the last points where it was to be obtained. We were certainly two, if not three days' journey from the summit, and an ascent of eight thousand feet was still to be accomplished.

On Monday, 21st, we set out at an early hour. The ascent now became much steeper than any we had hitherto experienced, for the whole face of the mountain consisted of one mass of lava, that had apparently flowed over in all directions from

the summit. The sun shone brightly, and his rays seemed to fall with increased power on the black lava. No wind was stirring, and the exhaustion consequent on the rarefied air we were breathing, made the labour of climbing very fatiguing; many suffered from nausea and headache, and the desire for water redoubled in both whites and natives. For water they could no longer find a substitute in berries, as they had previously done, for that fruit had disappeared, and the only vegetation left was a few tufts of grass.

About noon, Dr. Judd volunteered to proceed with the guide to ascertain if there was any snow, and at what distance. It was agreed that we should continue to move on in the same direction, and encamp when we found we could get no higher. Most of the party were now lying about on the rocks, with the noonday sun pouring on them; a disposition to sleep, and a sensation and listlessness similar to that produced by sea-sickness, seemed to prevail. I felt the former strongly myself, and enjoyed as sound an hour's sleep on the hard lava as I have ever had. The burdens had become intolerably heavy, and all complained of their inability to carry them. The use of the sextant had become still more fatiguing than the day before, causing me much pain to hold it. From what I myself experienced, I was satisfied that every one's strength had decreased nearly one-half.

We managed, after an hour's rest, to go on two miles further, and then encamped. No place offered where we could drive a peg for the tents, and loose blocks of lava were resorted to, to confine the cords. The principal inducement for stopping at this spot was the discovery of a large tunnel, or cave, in which the men could be accommodated, and which was at a sufficient distance from the Sunday Station for a day's journey. This station was afterwards known as the Recruiting Station, because all the sick and wounded from the higher stations were sent here as to an hospital.

Long after we had finished our arrangements for the night, and even after it had become dark, we looked in vain for Dr. Judd and his companion. We therefore lighted our fires as a signal to him, and were soon rejoiced to see him safely back. He brought with him a small snow-ball, and the agreeable intelligence that we should find abundance of snow on the top of the mountain, provided we reached it next day; for he told us it was melting fast. He had travelled for more than four hours and a half before he reached the snow, and had been an hour and a half returning down hill, on a run. The point where he met the snow appeared to him to be about equidistant from our present camp and the summit of the mountain.

I now felt that the troubles of my scientific operations were beginning, for I found that one of the iron cross-bars of the lower part of the pendulum-frame, which had been entrusted to a native to carry, had been broken into two pieces. To provide, however, for mishaps of this description, I had brought the armourer of the Vincennes with me. There would have been no difficulty in his mending it under favourable circumstances; but, fearing that in our present position he might not succeed, I at once despatched a messenger to the ship, with orders to have a new one made and forwarded as speedily as possible.

Although it was somewhat encouraging to know

that snow had been found, yet we were apprehensive it might disappear before we could reach it. On holding a consultation, it was thought best that all those who were not absolutely needed for the intended operations on the mountain should make a hasty trip to the top, or terminal crater, and then return to the coast; for our provisions, as well as water, were so low, as in all probability to reduce us to a very short allowance. It was, therefore, determined, that the consul, Mr. Brackenridge, Mr. Drayton, and Mr. Elliott, should each be supplied with a day's allowance, and go on at an early hour to the summit, unencumbered, in order to satisfy themselves with a sight of it, return before night to the Recruiting Station, and thence proceed down the mountain. I resolved to go on with a few of the instruments, to choose an encampment on the summit.

All the parties set out at an early hour on their several tracks and duties. My party consisted of the guide, Keaweehu, twelve Kanakas, and seven of our own men, including the sergeant. At about twelve o'clock we reached a spot where the guide pointed out a few half-burnt sticks, as the place where Lowenstern had cooked his dinner. As the two Kanakas who had charge of the bundles of wood had contrived to lighten their loads very much by dropping part of it by the way, I gave them orders to take the wood he had left to cook our supper.

Mr. Brackenridge passed me on his way from the crater. From him I ascertained we were yet three and a half miles from the terminal point. I gave him instructions to repair to the lower country, as there was nothing for him to do in this barren region.

The wind blew a strong gale from the south-west, and was piercingly cold: the thermometer, at 3 P.M., showed 25°. For some time previous, I had been obliged to keep the Kanakas before me, to prevent them from throwing their loads down and deserting; but I found them unable to go any further; being nearly naked, they were suffering much. Seeking a place of shelter under a high bank of clinkers, partly protected from the wind, I allowed them to deposit their loads, and gave them permission to return, upon which they seemed actually to vanish; I never saw such agility displayed by them before.

As soon as the natives who were on the road saw those from the upper party coming down, they could no longer be induced to face the cold, and all deserted at once. The mountain became in consequence a scene of confusion; being strewn with instruments, boxes, pieces of the portable house, tents, calabashes, &c., which the natives had dropped.

I now found myself with the guide and nine men, with nothing for a covering but the small tent used for the instruments, and the coming on of a snow-storm made it very necessary to have something to protect us. The thermometer had gone down to 18°, and most of the men were much affected with the mountain-sickness, with headache and fever, and were unable to do any thing. I felt quite unwell myself from the same cause, having a violent throbbing of the temples and a shortness of breath, that were both painful and distressing. With the few men that remained able to work, I began building a circular wall of the clinkers, to enable us to

spread what little canvass we had, over it; all the blankets we could spare were hung inside, which I hoped would keep us from being frozen. After succeeding in this, which occupied us till dark, we made a fire to prepare our scanty supper, and some tea for the sick. I now discovered that three of the men were absent; and on inquiry, found that they had gone down, in hopes of finding my tent, which they supposed had been left about a mile below. One may judge of my uneasiness, as it was pitchy dark, and there was no trace whatever of a track, or any thing by which they could find their way back, over many dangerous chasms. I had barely wood enough to heat the water for the sick, and no more than a piece or two of candle, without any lantern, and therefore no obvious means of making a signal. However, as necessity is the mother of invention, I turned my clothes out of the calabash, and fastening a piece of a cotton shirt over it, made quite a respectable lantern; this was placed on the most conspicuous point. After the light had been extinguished several times, and a series of difficulties encountered in relighting it, we succeeded in establishing our lighthouse; and though a feeble one, it had the desired effect. The men, when they first saw it, had already strayed off the track; and had it not been for the lantern, would not have been able to join us again. They came back, crawling on their hands and knees; and had travelled thus for most of the distance. The whole time they had been absent, was two hours and a half. Although I felt very much displeased with their departure without permission, I could not find fault with them,—so much was I rejoiced to see them in safety; and when I knew they had incurred all this fatigue and risk to make me more comfortable.

The snow now began to fall fast. My steward, from his thoughtfulness, had an ample supply of tea, which he had carried in his knapsack to save it from being plundered; and consequently we had enough to supply all.

The supper being ended, we stowed ourselves away within the circular pen; and while the men kept passing their jokes about its comforts, the wind blew a perfect hurricane without. The spirits of those who were sick began to revive; and although there was scarcely a foot of level rock, all were soon fast asleep. I had little inclination indeed to rest; for difficulties seemed to increase upon me.

At about four o'clock in the morning, the snow had accumulated in such quantities on our canvass roof, that it broke in upon us, bringing down also some of the stones. This was a disagreeable accident; and after escaping from beneath the ruin, it became necessary to take the covering off and clear the snow out of the pen, which was nearly full. This was the work of nearly an hour of unpleasant labour; but it was much more easily accomplished, than getting ourselves warm again. I need scarcely say, I passed a most uncomfortable night.

When daylight came, the storm had somewhat abated in violence, and I despatched the men for the tents and wood, a part of which had been dropped by one of the natives within half a mile of our position. A man soon returned with the wood, and another brought forward a calabash, in which we fortunately found some provisions,

and we soon had what we little expected, something to eat, and what the men called a comfortable breakfast.

It was very pleasant to find the sick ones reviving, and good-humour and cheerfulness so predominant among them that they seemed ready for further exertions. We had now all that was necessary to push on to the summit. I left a flag on a rocky peak near by; and this was afterwards called the Flag Station.

About eleven o'clock we set out, and were obliged to cross a mass of clinkers, which our guide had hitherto endeavoured to avoid. When, after two hours' laborious walking, we reached the top or terminal crater, it still continued snowing in squalls, with a keen south-west wind driving in our faces; the ground being covered a foot deep with snow, rendered it more dangerous and irksome to pass over such loose and detached masses.

From intelligence that had been brought me by the gentlemen who had gone before and taken a hasty look into the crater, it was thought that the descent into it would prove easy, and that I might encamp on its floor; but I found after travelling a long distance over the rugged surface, that it was impossible to succeed in making a descent. I was, therefore, compelled to return, and choose the smoothest place for our encampment I could find. It was after four o'clock, and but little time was left for the men to return. As soon as they had pitched the tent, within about sixty feet of the ledge of the crater, using large blocks of lava to confine its cords, I sent them off under charge of the guide to the Flag Station, and remained with my servants only.

By six o'clock I thought that we had made ourselves comfortable for the night, and that the storm had so far moderated that it would not trouble us; but a short hour proved the contrary. Our fire was dispersed, candles blown out, and the tent rocking and flapping as if it would go to pieces, or be torn asunder from its fastenings, and disappear before the howling blast. I now felt that what we had passed through on the previous night was comfort in comparison to this. The tent, however, continued to stand, although it had many holes torn in it, and the ridge-pole had chafed through its top.

It was truly refreshing, after the night we had passed, to see the sun rising clear. It seemed quite small, and was much affected by horizontal refraction, as it appeared above the sea, forming a long horizontal ellipse of two and a half diameters, first enlarging on one side and then on another. After it had reached the height of two diameters above the horizon, the ellipse gradually inclined on the right, and in a few moments afterwards its longer axis became vertical, and it then enlarged at the bottom, somewhat in the form of an egg.

My servants fruitlessly attempted to make a fire; after they had exhausted all their matches without success, we each took turns to ignite a stick after the native fashion, but with no more success; the nearest approximation to it was plenty of smoke. After making many vain attempts, and having had but little sleep, we took to our blankets again, to await the coming of some of the party from below.

At about eleven o'clock on the 23rd, Drs. Judd and Pickering pulled open the tent, and found us

all three wrapped up in our blankets. They had passed the night at the Flag Station.

The news Dr. Judd brought was far from encouraging, nearly all the natives had deserted the boxes; many of them had not even reached the Recruiting Station, Ragsdale and his forty goats had not arrived; nor were there any tidings of the party from the ship. The natives hearing of our distresses, and probably exaggerating them, had refused to furnish any thing unless at exorbitant prices. The officers had very properly rejected the whole that was offered; for, although our allowance was small, we trusted that the provisions from the ship would arrive in a day or two at farthest.

After getting a fire lighted, and something to eat, Drs. Judd, Pickering, and myself, set out to reconnoitre the crater for a more suitable place in which to establish the tents; but, after much search, we found none that offered so many facilities as that I had accidentally chosen the first night. Dr. Pickering parted from us, and was the first to make a descent into the crater.

Nothing can exceed the devastation of the mountain: the whole area of it is one mass of lava, that has at one time been thrown out in a fluid state from its terminal crater. There is no sand or other rock; nothing but lava, on whichever side the eye is turned. To appearance it is of different ages, some of very ancient date, though as yet not decomposed, and the alternations of heat and cold, with rain and snow, seem to have united in vain for its destruction. In some places, it is quite smooth, or similar to what has already been described as the pahoiohi, or "satin stream;" again, it appears in the form of clinkers, which are seldom found in heaps, but lie extended in beds for miles in length, sometimes a mile wide, and occasionally raised from ten to twenty feet above the surface of the surrounding lava.

The place where these clinkers appear to me to have been formed is in the crater itself; there they have been broken up by contending forces, and afterwards ejected with the more fluid lava, and borne upon its surface down the mountain side, until they became arrested in their course by the accumulating weight, or stopped by the excessive friction that the mass had to overcome. In this way the beds, or rather streams, of them might have been formed, which would accumulate for miles, and continue to increase as the crater discharged this description of scoria. What strengthened my opinion in this respect was, that there were, apparently, streams of pahoiohi coming out from underneath the masses of clinkers wherever they had stopped.

This day we received news of the arrival of Lieutenant Alden at the Recruiting Station, with the detachment from the ship; but he had brought no provisions, and none had yet reached the station. This arrival, therefore, instead of supplying our wants rather increased them.

The small transit was brought up this day, and, to add to my vexations, on opening it I found the level broken. I did not stop to inquire by what accident this had happened, but within ten minutes despatched an order to the ship for another, which was distant sixty miles.

In the evening, at 6 p.m., the thermometer stood at 29°, and during the night it fell to 22°.

Christmas-day set in quite stormy, with snow and a gale from the south-west; it was very cold, and the only way we had of keeping warm was to wrap ourselves up with blankets and furs. We had just wood enough to heat a little chocolate.

The small instruments having arrived, I began some of the observations.

While the rest were employed in making our tents as tight as possible, in the one Dr. Judd and myself occupied we discovered a great deposit of moisture, which, on examination, was found to be caused by steam issuing through a crack in the lava. On placing a thermometer in it, it rose to 68°. The tent was forty feet from the edge of the precipice of the crater, and it was not surprising that the steam should find its way up from the fires beneath. As it somewhat annoyed us, we pounded and filled the seam full of broken pieces of lava. This circumstance led to the discovery of a small piece of moss, the only living thing, either animal or vegetable, that was found within six miles distance, or within four thousand feet of the height of the terminal crater. This moss was here nourished by the steam that escaped, which supplied it with warmth and moisture.

This day we made many experiments on the temperature of boiling water: the mean of the observations gave the boiling temperature at 188°, being five hundred and sixty feet to each degree of temperature. At the volcano of Kilauea, I had found it less than five hundred and fifty feet to each degree; while the result of careful experiments at the Sunday Station gave five hundred and fifty-five feet to the degree, and at the Recruiting Station, five hundred and fifty-eight feet.

We also employed ourselves in building a high stone wall around a space large enough to contain the houses and tents, when they should all arrive, having found the necessity of it to protect ourselves from the violent winds. Besides this, each tent was to be surrounded by a separate wall, up as high as the eaves, when completed.

Some of the boxes now began to make their appearance, by the aid of the sailors from the ship; but the provisions had not arrived, and the allowance was again reduced. Most of the men were reported as without shoes, having worn out those they left the ship with; and being barefooted, could not move over the sharp vitreous lava. Many of them were likewise said to be ill with the mountain-sickness. Wood was brought up, and water sent down to the lower station, in exchange.

The wind had been fresh throughout the day; but towards night it began to increase, and by eight o'clock we had another violent gale from the south-west. I do not think I ever passed such a night: it blew a perfect hurricane for several hours, causing an incessant slamming, banging, and flapping of the tents, as though hundreds of persons were beating them with clubs. These noises, added to the howling of the wind over the crater, rendered the hours of darkness truly awful.

The two other tents were blown down, but mine stood firm. The men lay under the fallen tents, and were made far more comfortable after the accident. It was impossible to stand against the gusts; and we watched all night, for no one could sleep. The thermometer fell to 17° inside the tent; and water in the bags, under my pillow, froze. About three o'clock, the wind began to

moderate; and at sunrise, we found the temperature at 20°.

From the news received on the 25th, respecting the condition of the men, I determined to see them myself. Dr. Judd and I therefore set out on the morning of the 26th; and when about two miles from the summit, we met Lieutenant Alden, Dr. Pickering, and Mr. Eld, who were coming up to see me, to report the condition of the men. The account they gave of them was any thing but cheering. On the arrival of Lieutenant Alden, I had directed that he should take an intermediate post between Lieutenant Budd's Recruiting Station and the summit crater, in order that the men belonging to one station might be able to bring up their loads and return before night. This, Lieutenant Alden informed me, he had done: his station was at the height of eleven thousand eight hundred feet.

I now saw more strongly the necessity of my going down, in order to ascertain the exact situation of things, give the men encouragement, and renew the spirit with which they had left the ship, as volunteers. I have always found that sailors are easily encouraged; and by putting a light heart and cheerful face upon the times, they quickly re-assume their good spirit; and this I found to be the case in the present instance.

We parted; Lieutenant Alden, Dr. Pickering, and Mr. Eld going up to the terminal crater, while Dr. Judd and myself continued to descend for about four miles. There we found a large number of men in a temporary tent, lying on the panels of the portable houses: some of them were suffering from mountain-sickness, others vomiting; some had attacks of diarrhoea, others had not got over their forced march, and showed me their bleeding feet and shoeless condition; all were looking half-savage, with overgrown beards, dirty and ragged clothes,—so totally different from their trim and neat appearance on board ship, that I was shocked at the change produced in so short a time.

Whilst Dr. Judd administered to the sick, I spoke to those who were well, and succeeded in animating them: they all assured me they were "good pluck," and such I afterwards found them. They set about mending their shoes and making sandals; and by the next day, many were transporting small loads up the mountain side.

At about four o'clock we reached the Recruiting Station, having encountered the boxes and various articles, together with pieces of the portable house, strewn along the way. These had been left by the natives, who deserted *en masse* when those who had left me the first night came down giving exaggerated accounts of the cold, and other difficulties of the journey. I found Lieutenant Budd quite well, and only a few of the men that were with him sick: they had little or no provisions.

The difference of temperature between the altitude of fourteen thousand and nine thousand feet was very apparent: we could now enjoy sitting in the open air without feeling cold; it was as if we had passed at once from winter to spring. Although, ten days before, I had looked upon this spot as particularly barren, being destitute of vegetation and without water, yet, by comparison with the upper station which we had just left, every thing now appeared comfortable. It had been chosen, as I have said before, for a very remarkable cave,

which had now become our hospital, and which was found dry, warm, and large enough to have accommodated the whole party. All the sick were immediately transported here, and placed under the superintendence of Dr. Judd and his assistants. The men here had procured a large turtle-shell from the natives, and in commemoration of their jaunt, engraved on it all their names, and nailed it to a staff which they erected at the mouth of the cave.

We passed the night with Lieutenant Budd, and although the lava floor of the tent was a rough bed, we seldom enjoyed so sound a sleep.

After arranging every thing relative to the provisions, when they should arrive, and visiting the sick with Dr. Judd, I determined to return to the top. The doctor remained for a day or two, to arrange matters with the natives at the lower station, so as to have our supplies more regularly forwarded. Taking with me James G. Clarke, a seaman, I again started for the summit, heavily laden with provisions. In order to prevent any accident by losing the direction, small flags were placed, as we went up, within sight of each other. We reached the observatory at the terminal crater at four o'clock, after a hard walk of six hours. We had now three stations, viz.: the Recruiting Station, Lieutenant Alden's, and the Flag Station, under the sergeant of marines. These made it a more easy task to get the loads up, although it would require a longer time.

I found they had built some part of the wall around our encampment on the summit, and being apprehensive that we were again to have bad weather, we all joined to secure the tents more effectually against the anticipated storm.

The cold, this day, to our feelings was intense, although the temperature was not lower than 26°. All our exertions in carrying stone for the wall, and violent exercise, could not keep us warm. Dr. Pickering came in, towards dark, half frozen, having made the circuit of the three craters, which had occupied him nearly all day.

The two chronometers, with the pendulum clock, and some of the pendulum apparatus, had reached the top during the day; and I was rejoiced to find, on examination and comparison with the one I had, that no difference of rate had yet taken place.

On the 28th the day dawned with fine weather, and continued beautifully clear. We were employed in taking observations, and the transit was set firmly, to get the passage of the stars: a wall was also built around the observatory, to protect it from the wind.

On the 29th we were busy putting up the pendulum apparatus. A short time after noon, Dr. Judd again joined us with the joyful news that the party from the ship had arrived, with sixty days' provisions for as many men. I now felt that through our own perseverance we should succeed in obtaining our wishes, for with this supply we could remain sufficiently long to effect my object in visiting the mountain.

At night, on the 30th, we had a visit from the old guide, Keaweehu, the bird-catcher, who gave us the name of the terminal crater, as Moku-a-weo-weo, and of that south of it as Pohakuohalei. According to his statement, Moku-a-weo-weo emitted fire not long after Cook's visit, and again five years since, on the north side.

We now erected our pendulum-house, and Treble, the armourer, succeeded in rendering the bar of the pendulum-frame as good as it was originally.

The view from the western side of the dome of Mauna Loa was, as we saw it, surpassingly grand. In the distance, the island of Maui emerged from and broke the line of the deep blue horizon, while its lower side was dimmed by a whitish haze, that seemed to unite it to the island of Hawaii. The same haze enveloped the hills of Kohala on our right, and the western extremity of Hawaii. Nearer to us was Hualalai, the third great mountain of Hawaii, up whose sides a compact mass of white fleecy clouds was impelled by the sea-breeze. To our right rose in bold relief Mauna Kea, covered with its snowy mantle; and at our feet was spread out, between the three great mountains, the black plain of lava, overhung by a dusky pall of clouds. All these features were so blended into each other by the mist, as to exhibit a tone of harmony that could hardly be conceived, considering the variety of the forms, characters, and distances of the objects, and which seemed to blend earth, sea, and sky into one. I can never hope again to witness so sublime a scene, to gaze on which excited such feelings that I felt relieved when I turned from it to engage in the duties that had called me to the spot.

It was not without some nervous excitement that I placed my instrument on the highest point of Mauna Loa, within a few feet of its crater, and turned it upon Mauna Kea, to measure the difference in the height of these twin giants of the Pacific.

The very idea of standing on the summit of one of the highest peaks in the midst of this vast ocean, in close proximity to a precipice of profound depth, overhanging an immense crater "outrageous as a sea," with molten rock, would have been exciting even to a strong man; but the sensation was overpowering to one already exhausted by breathing the rarefied air, and toiling over the lava which this huge cauldron must have vomited forth in quantities sufficient to form a dome sixty miles in diameter, and nearly three miles in height.

I was still in doubt which mountain I should find the highest; for although previous measurements had given it in favour of Mauna Kea, yet I had found Mauna Loa about three hundred feet higher than it had been reported to be. Double the zenith angle was soon obtained, and decided it in favour of Mauna Kea, and subsequent calculations gave one cone of it as one hundred and ninety-three feet above the place where I stood. Although twin mountains, they are of very different character. Mauna Kea is a vast mound topped with cones, nine in number, whilst Mauna Loa is a smooth dome. On the former the frosts of winter prevail, while the latter has internal fires, and occasionally vomits forth its lava to the very point where the other begins to rise, covering its broad flanks with layers of rocks.

When day broke, on the 13th January, all was bustle on the summit of Mauna Loa. Every one was engaged in taking down and packing up the instruments and equipage, loaded with which the native labourers scampered off. Some of them, indeed, unable to bear the cold any longer, and hoping to obtain loads afterwards, withdrew without burdens.

At nine o'clock, Dr. Judd, myself, and six of the crew of the Vincennes, bade adieu to the walled village we had built. The men showed their delight at quitting this barren and desolate spot by three hearty cheers.

Previous to our departure, I had the words "Pendulum Peak, January, 1841," cut in the lava within our village. J. G. Clarke, one of the seamen belonging to the Vincennes, who made these marks came to me and desired, on the part of the men, that I would allow them to add to it U. S. Ex. Ex., in order that there might be no mistake as to who had been there; to this I readily gave my consent. This was the same man who had been wounded at Malolo, and one of the best and most useful we had with us; in himself he united many employments, as a seaman, drummer, fifer, cook, and stone-cutter; knew a little of physic, sang a good sailor's song, and was wistful a poet!

The wind when we set out, blew very strong from the south-west, and flurries of snow were passing by every few minutes. In two hours we reached the Recruiting Station, where we found Lieutenant Alden and many Kanakas on their way up. After a rest of two hours, and obtaining new shoes, we went on and reached the Sunday Station at five o'clock, scarcely able to drag one foot after the other. Here we were soon enveloped in mist, and found the soft and delightful temperature of spring. I cannot venture to describe the effect this produced on us after our three weeks' sojourn on the cold, bleak, and barren summit. I felt for the first time in my life fairly broken down, and

almost past the soothing effects of the loomi-loomi, which the natives at once offered as a relief to me: it may be called a lesser shampooing, and consists, as practised in the Sandwich Islands, of a gentle kneading of the limbs, which has a great tendency to restore the circulation, and relax the muscles and joints. The natives use it for rheumatism, headache, and all kinds of pains. It requires some skill to do it well, and there is the greatest difference in the performance between persons who are practised in it and those who are not. The chiefs generally have two persons employed at the same time. We soon had a good fire made before our Hawaiian hut; its warmth, together with an excellent supper, made us comfortable, and we were soon asleep on the dried grass.

The next morning, when I awoke, all nature seemed to be alive: the songs of the birds, the cheerful voices of the natives, were delightful; the green foliage gave every thing an air of spring. We were so stiff as scarcely to be able to move, which was all that now remained to remind us of the scenes we had left, and the fatigues we had undergone. When we again set off, it was amusing to see the whole party moving along with their stiff and aching limbs, trying to appear but little fatigued. At twelve o'clock we reached the station where we had abandoned our chairs, and I never was more relieved than when I reached mine, for I was quite unable to walk any further. Here, also, we were met by the natives with fruit; indeed, every step we took seemed to be restoring us to the comforts of life.

CHAPTER XXIX.

HAWAIIAN GROUP, OR SANDWICH ISLANDS—(CONCLUDED).

DEPARTURE OF THE VINCENNES FROM HILO BAY—ISLAND OF MAUI—KING'S PALACE—TOWN OF LAHAINA—PRIVATE APARTMENTS OF THE KING—APPEARANCE OF THE QUEEN—SEMINARY OF WAILUKU—SUGAR MILLS, &c. IN THE VALLEY OF THE WAILUKU—MOUND OF HUMAN BONES OBSERVED—CATCHING BIRDS—BOAT LOST—LIEUTENANT BUDD'S ACCOUNT—VISIT TO THE SEMINARY OF LAHAINALUNA—PLAN SUGGESTED FOR THE IMPROVEMENT OF THIS SEMINARY—ROADSTEAD OF LAHAINA—PRODUCTIONS OF MAUI—INDUSTRY OF THE INHABITANTS—MISSIONARY DUTIES—EAST MAUI—CRATER OF HALEAKALA—NATIVE VICES—LOVE OF HOME—SHOAL OF KAHOO LAWE—ISLANDS OF LANAI AND MOLOKAI—THE VINCENNES AND PORPOISE AT HONOLULU.

By the 15th of February, 1841, I found that my long detention at Hilo would place it out of my power to visit the Marquesas Islands, as I had intended. I therefore determined, before returning to Oahu, to pass a short time at Maui; and as we had exhausted the field of research on Hawaii, I gave orders to Messrs. Pickering, Drayton, and Brackenridge, to take passage thither in a small vessel, in order that they might have a longer time to explore that island. Dr. Judd took passage in the same vessel, to return to Oahu. On the 5th of March, we succeeded in getting to sea.

The longitude of Waiakea Bay was found to be 155° 3' W., latitude 19° 43' 51" N.

The afternoon was fine, and the snowy peak of Mauna Kea was quite distinct: by running a base line with the patent log, and obtaining the requisite angles, we made its height thirteen thousand six hundred and fifty-six feet.

At midnight, being nearly up with Kahoolawe, we hove-to, to await daylight, as I wished to look for a shoal that was supposed to exist off its southern end. I passed within two and a half miles of that point, and had nothing less than seven and a quarter fathoms water. By half-past nine we had entirely lost the trades, owing to the high land, and, after being becalmed for an hour, we took a light sea-breeze from the south-west, which slowly brought us to an anchorage in Lahaina Roads, abreast of the king's palace.

The island of Maui is divided into two oval-shaped peninsulas, connected by a low isthmus, only a few feet higher than the beach. Although on a first view the peninsulas resemble each other, on closer examination they are found to be very different. East Maui is the largest of the two, and rises in one unbroken mountain ten thousand feet in elevation, which falls almost perpendicularly

towards the sea. West Maui has many sharp peaks and ridges, which are divided by deep valleys, and which in descending towards the sea open out and form sloping plains on the north and south sides of considerable extent. The highest peak of West Maui was found, by triangulation, to be six thousand one hundred and thirty feet.

An officer was at once despatched to wait upon the king, who signified his desire to see me in the afternoon. I accordingly had the honour of waiting on him, and was received with great warmth and kindness. I paid him a long visit, in which the conversation turned principally on the business of his islands.

The king's palace is built of coral rock, and is only half finished: it already seems to be in a somewhat dilapidated state, and exhibits poverty rather than regal magnificence. I could not but feel that too little attention had been given to his household by those who have had the management of his affairs. I regretted to see that any change, except for the better, had been effected in the native style of accommodation. His present residence is neither calculated to maintain the respect of his subjects, nor to enhance his importance in the eyes of foreigners. I am well aware that improvements are going on near to and connected with the situation his house occupies, but I believe that these could all have been long since finished, had proper exertions been made.

The town of Lahaina is built along the beach for a distance of three-quarters of a mile: it is principally composed of grass-houses, situated as near the beach as possible: it has one principal street, with a few others running at right angles. After the king's palace, the fort is the most conspicuous object: its form is quadrangular, the longest side facing the sea: it is of little account, however, as a defence, serving chiefly to confine unruly subjects and sailors in. The area within is about one acre, and the walls are twenty feet high. By the observations which I made here, it is situated in longitude $156^{\circ} 41' W.$, latitude $20^{\circ} 51' 50'' N.$

I had the pleasure of receiving his majesty on board, with suitable honours, accompanied by his suite. They made a very respectable appearance; and although what I had already seen of the king had greatly prepossessed me in his favour, a visit which I paid him before my departure tended greatly to increase the interest I felt for his welfare. Instead of being received in the dilapidated and half-finished palace, I was ushered over a small causeway to a short distance behind it, into his private apartments, and introduced to his wife, who had been very unwell. She is not acknowledged as queen. She is the daughter of an inferior chief on the island of Hawaii, and the prettiest woman on the island. The king, it is believed, married her from affection, and against the wishes of his chiefs, after they had prohibited his marriage with his sister Nahienaena. In order to prevent any dispute in the succession to the throne, it was formerly deemed necessary that the king should take all the women of the highest rank as his wives, and all the children born of them were declared and considered as his heirs.

The present king is said to be the natural son of Kamehameha I., and became, from political causes, heir to the throne.

After crossing the causeway we reached a small

island: on this was a grass-house of moderate dimensions, surrounded by hibiscus trees, which grow quite low, and made a bower almost imperceptible to the sun's rays. At the entrance of the house I was met by his majesty, dressed in a roundabout of blue cloth, and white pantaloons. He led the way into the bower, in the centre of which his wife was lying in a clean white hammock, suspended between the trees. Every thing about her was pleasant-looking, betokening care and attention to her comfort, and a degree of refinement I little expected to see. Although unwell, she showed many marks of beauty, and I was much struck with her appearance.

The king told me these were their private apartments, where they could remain undisturbed and free from intrusion. They passed most of their time together, and he pointed out a small hut of ti-leaves that he had constructed for her, in which she had been lying on new-mown grass. The king pointed out the improvements he had in contemplation, but complained that he had not money to carry them on. Although his income is very considerable, in tapas and native produce, and would have constituted great wealth in former times, yet from the depreciation in the value of these articles, it is now of little value. He has so many hangerson, that it takes a large amount to supply, maintain, and clothe them, even in the ordinary garments of the island. These circumstances leave the king quite as poor as any of his subjects.

The little domestic scene I had witnessed gave me great pleasure, the more so from being quite unexpected; and I found afterwards that very few are ever admitted to this sanctum sanctorum. I take pleasure in mentioning it, as I had not before given his majesty credit for the domestic virtues, which I am now satisfied he possesses to a great degree, both from the tenor of his conversation and the pleasing picture he exhibited in the last interview I had with him.

His wife is much fairer than the natives usually, and she has not so coarse and disproportionate a figure as seems characteristic of the females of distinction in these islands. Her features, however, were decidedly of the native character. The tone of voice was pleasing and ladylike.

Wishing to inspect the female seminary of Wailuku, which I had heard much spoken of, I went over to it, in company with Mr. Drayton. One of the chiefs was obliging enough to furnish me with a horse for the occasion.

The seminary of Wailuku consists of an extensive range of coral and adobe buildings, beautifully situated on an inclined plane, with high and massive precipices behind, in a flourishing village, which shows more of systematic improvement and organized exertion than any place I have met with in the Hawaiian islands. The fields, also, are better fenced, and the crops more diligently attended to. We were kindly received by the Rev. Mr. Greene, his lady, and Miss Ogden, who have the charge of the establishment, which consists of eighty scholars, between the ages of twelve and eighteen years. Every opportunity was afforded me of inspecting the establishment, and while I found much to commend, there were many things I could have desired to see changed.

In the first place, I was much struck with the appearance of a want of cleanliness in the dresses

of the scholars, contrasting so unfavourably with the neatness and cleanliness of the rest of the establishment. Neither can it be expected that they should imbibe cleanly habits, or be able to preserve them, when they are allowed to wear their clothes unchanged from the beginning to the end of the week. The dress consists of the usual loose gown adopted in the islands, and in which these children are allowed to sleep. On Saturday they wash, and on Sunday make their appearance in a white cotton smock, shawl, and bonnet, the latter of their own manufacture. Their dormitory is a long adobe building, with walls two feet thick, divided into compartments twelve feet by ten, each of which accommodates three scholars. More than half of this space is occupied by their bed, which is made of mats laid on a bank of ti-leaves, or sugar-cane, about two feet thick, with a small pillow of about eight inches square. What clothes they had were hung up in the corners, and a scanty supply they appeared to be. Rolls of tapa were laid on the mats, which serve to cover them at night. The only ventilation was through a small window and the top part of the partition-wall, which was left open. I passed into several of these small rooms, all of which had a musty smell, as of decayed or mouldy vegetable matter. It was no longer a subject of surprise to me that the establishment had obtained the name of being unhealthy, or that several of the girls had died*.

While Mr. Greene gives the scholars instruction in the various departments of education, Miss Ogden teaches them all kinds of useful employments, such as spinning, weaving, knitting, sewing, quilting, millinery, &c. She has, also, the superintendence of their eating apartment, and no place could be better arranged than this part of the establishment: every thing has a useful purpose, and one readily sees the practical operation of all that is doing. I had the pleasure of seeing the scholars at their meals, where all was regulated and went according to rule: those who were appointed to "wash up" kept their places while the rest left the table. They made a better appearance at their morning meal than they had done on the day of our arrival, wearing now neat white capes; but I still saw the same frocks. I do not, however, wish to give the idea that they are not in reality clean: they are so beyond a doubt, as I understood they bathed almost every day; but they did not look tidy. Miss Ogden took her place at a small table, whence she was enabled to overlook the whole. Their food is that of the country, consisting principally of poe and fish, and they are occasionally indulged with molasses.

Baths and walking-grounds are prepared for them, where they can take exercise. The avowed object of this establishment is to educate the daughters of Hawaii as wives for the young men who are educated at Lahainaluna. They are fed and clothed by the Missionary Society, and it is proposed that they shall remain at the establishment until they be married.

One courtship has already taken place by letters; and I was informed these were the first love-letters that had ever been written in this group. I was

* I have since understood that this defect has been remedied, the scholars having been provided with bedsteads and bedding, and that no cases of sickness have since occurred.

extremely desirous of obtaining the originals or copies, but was not successful. The correspondence appears to have been carried on under the eye of the missionaries, and the expressions they contained were very common-place.

This whole establishment does great credit to those who are engaged in rearing it up, on account of the method and perseverance with which it is carried on. It is extremely gratifying to see efforts of this kind made, but I cannot help doubting the policy of not allowing any of the burden of it fall upon the natives themselves (the parents). The only argument advanced in justification of this course, was the rather unsatisfactory one, that these people cannot understand and appreciate sufficiently the advantages, to be persuaded to contribute to the education of their children. As far as my own observations went, I believe this to be an error. As long as the children are educated and maintained gratis, the natives will never make any exertions to furnish the means. Some of the natives said to me, on my making inquiry why their children were not at the seminary, that they could not get them there, for all those admitted were selected by the missionaries, and there are no other means of tuition; they also added, that they would be willing to contribute a few dollars for the education of their children, if allowed.

The greatest objection to the system of this school, in my opinion, is that the pupils are not taken at an earlier age, and before their habits are in any way formed, and that it is attempted to educate them exclusively for civilized life as it now is. Taken at too advanced an age, they have scarcely an opportunity of forgetting the life of ease they led while in their savage state; and thus their early impressions remaining still uneradicated, they return almost as soon as they leave the school to their savage state, finding it more easy than to keep up their partially civilized habits; whereas, if they were taken very young, and put under a course of discipline that would make their improvement permanent, and were, besides, taught the way of maintaining themselves as they now are, by useful employment, they would not be so likely to relapse into their former habits, or adopt those of their parents. I have little doubt, that such a course would be a great means of reforming many of their parents, as far as they are susceptible of reformation; for the relation between parents and children is altogether different with them from what it is among us, parents being invariably under the control of the children, after the latter have grown up.

The plan of taking the children, as is done, from the dregs of the natives, is, I think, another mistake. The higher orders in a monarchical system of government ought to be more carefully instructed than the others. This principle is admitted by the establishment of the chiefs' school at Honolulu, and I see no reason why it should not equally apply to the children of the petty chiefs, or second class. I am, indeed, satisfied that greater advantages would be derived from such a course, and the school would, in this way, become more popular. Parents of this rank would, also, be enabled to assist in its maintenance, and the lower orders, as elsewhere, would imitate the higher.

I must do full justice to the good fare and kind

attentions of Mrs. Greene; and from the appearance of the supper-table, I could readily have believed myself in New England instead of the Hawaiian Islands.

Early the next morning, Mr. Drayton and myself went to breakfast with Mr. Baily and his wife. He is the assistant missionary at this station, and superintends the school for boys. It being Saturday, and a holiday, we had not the pleasure of seeing the scholars.

Mr. Baily had provided bountifully for us, and there was ample evidence here that this was a land of plenty, to all those who exercised ordinary industry.

After breakfast, Mr. Greene was obliging enough to accompany us to see the sugar-mills and taro-plantations, in the valley of the Wailuku. The sugar-manufactory is an experiment of the king, and is now under the superintendence of a Chinese. By some awkward mistake in making the agreement, his majesty's interests were entirely lost sight of, and it is said that he will lose money, although his agents have a prospect of considerable gain. The iron-work of the mill was imported from the United States, and is turned by water-power. The water-wheel is badly constructed: it is a breast-wheel, with great loss of power.

There appears but little economy about the establishment: as an instance of this, instead of drying and preparing the cane for fuel, they use wood altogether, which is very scarce, and costs much to transport it. The sugar appears to be of good quality, and with proper attention, the manufactory could no doubt be made profitable. I understood from the Chinese who had charge, that the sugar could be sold at four cents per pound, and that with a proper economy as to fuel, might be reduced to half that sum.

Both the king and chiefs have a desire to encourage the arts and agriculture. Unfortunately, however, after they have incurred expenses, they are obliged to give the sole direction into the hands of those who have nothing but their own interests in view. The consequence is, that in all these undertakings the king and chiefs have found themselves deceived, by listening to foreigners by whom they have been defrauded.

We now rode down the valley among the taro-patches, and over to the Sand-hills, where was a mound of human bones,—a perfect Golgotha. There appears to be no tradition respecting this accumulation of mortal relics. By some it is supposed to have been a burying-place after a battle, for the place where they were found was known to be a battle-ground. Bloody contests, indeed, must have taken place here, if we are to judge from the number of skeletons which are exposed. Some of these are in a state of perfect preservation, and I regretted not being able to transport one to the ship.

Near this place we saw several boys anxiously watching some object, and on getting near them, found they were employed in catching birds. This was done by baiting small sticks, to which a string was tied, and the other end of the string fastened to a small stone: the bird swallows the stick along with the bait, and in attempting to fly off, it pierces his throat, and he is thus secured.

After riding around these plains we returned to Wailuku, where we partook of a sumptuous lunch, and parted under a feeling of obligation for the

kind attentions we had received, and the tokens of remembrance from the scholars. We reached Lahaina before dark, after a fatiguing ride.

On our way I heard a rumour that one of the boats had been lost, which made me anxious to get on board as soon as possible. I had been flattering myself that from dangers of this kind we were, at least for the present, exempt; but the report proved too true. Previous to leaving Lahaina, I had despatched Lieutenant Budd, with Passed-Midshipman May, in charge of two boats, and it was to one of these that the accident occurred. Lieutenant Budd gave the following account of it.

At ten o'clock, on the 9th of March, they left the ship, when it was blowing a moderate breeze, and steered for the south point of Kahoolawe. After they had proceeded some distance on their way, it fell calm for a short time, and then the trade-wind set in strong from the northward and eastward, and soon increased to a stiff gale, the sea rising to a dangerous height for the boats. Just after doubling the point of Kahoolawe, Passed-Midshipman May, in the Leopard, hailed Lieutenant Budd, to report that his boat was sinking; and four of the men were perceived to be baling. Lieutenant Budd pulled alongside, and seeing the boat was settling, ordered the anchor to be dropped. Most of the crew continued to bale with their hats, whilst the rest passed out the most important articles. A portion of the Leopard's crew, who could not swim, were now ordered to get into the Greyhound; Lieutenant Budd intending to land them and return for those on the wreck. The men who were thus left said that the boat was drifting to sea, and wished to be taken off; but this would have endangered the lives of all. Passed-Midshipman May, perceiving their unwillingness to remain, jumped overboard and joined them: his example encouraged them to do their best. Lieutenant Budd succeeded in as short a time as possible in landing the men and articles from his boat, and then returned. He found the boat sinking fast, and the officer and men supporting themselves with the oars. The boat was now turning over and over as every wave struck her. Mr. May and the rest of the men were taken on board, and they then returned to the shore, all much exhausted. Lieutenant Budd, seeing that the side of the boat had been stove in by a heavy sea, and the impossibility of saving or being able to repair the boat, left her to her fate, and took such measures as he found necessary for the comfort of his men. Lieutenant Budd deserves much credit for his presence of mind in preserving the lives of the men entrusted to him, as well as protecting them afterwards from unnecessary exposure.

Kahoolawe, the island they were now on, lies to the west of the south end of Maui, and is fourteen miles long by five miles wide. It is uninhabited, except by a few poor fishermen, and is used as a place of exile: at this time, there was one state prisoner confined on it. Lieutenant Budd returned to the ship on the 15th.

I visited, in company with some of the officers, the seminary of Lahainaluna, situated on the hill behind the town, and about two miles distant from it. The road thither was partly made by the pupils of the seminary. We found the students at work along this road, making stone walls. Many of them were large boys or young men. Their

mode of working was not systematic, and every one appeared to be doing what he thought best: they did not appear to be identified with their work, but seemed more like a rabble. We were received by the Rev. Mr. Andrews, who was kind enough to show us the whole establishment.

On our approach, we noticed an air of neglect, and particularly in the out-buildings. The garden also was in bad order; indeed, nothing succeeds well in it, because its situation is too high for irrigation, which in this climate is absolutely necessary. The soil is composed of a red clay, which in dry weather forms a fine dust, covering every thing, and which the daily winds continually raise into clouds. These circumstances present an obstacle to one of the great objects of the institution, while the scarcity of water prevents the inculcation of habits of personal cleanliness, of which the natives stand in great need.

In all the departments of this establishment I saw nothing but ill-directed means, and a waste of funds that might have been avoided by proper forethought, and a full examination of the subject by practical men. The school has passed its meridian, and is now fast going to decay, a fact which must strike every one on a casual visit. The discipline of the scholars is loose and irregular; they are their own rulers, and make their own laws: in this respect it may be called a republican school. The scholars act by committees, and without the knowledge or consent of their teachers, in every thing that concerns themselves and their appointments. As may be supposed, they are left to settle their own disputes, and little discipline of any kind exists.

It is easy to point out the defects in an establishment, but much more difficult to suggest a remedy. The difficulty is, perhaps, not easily overcome, but I will offer one or two plans, which appeared to me to be feasible, and calculated to give the natives a turn towards becoming a pastoral as well as an agricultural people. The pupils should be taught the care of cattle and the superintendence of flocks, to which pursuit the greater part of the land of these islands is well adapted. A sufficient inducement might be held out for exertion, by giving them a portion of the increase of the flocks, that would recompense them for their care, without increasing the expenses of the society. Above all things, in their manual-labour schools the higher branches should not be taught before the pupils are all well grounded in the lower ones; for instance, I can conceive of nothing more absurd and useless than spending the time of both teachers and scholars in studying Greek, as was proposed. Fortunately for the students, however, they could not proceed for want of books. I would not be understood as throwing any blame on the missionaries: there are many errors committed and expenses incurred in conducting a mission, that ought to be looked at with much charity by those who are visitors, as well as by the society at home. Even a slight knowledge of the situation of things will show how difficult it is for the Board of Missions to judge of the expenses incurred in carrying on their operations, and how unwise it is for the managers at home to control their agents, except by some general rules applicable to their duties. The employment of persons in whom they have confidence is the best and only security; and

if those who are invested with the power should make a wrong use of it, the remedy is to remove them.

Much discontent has been caused, and the usefulness of the missionaries impaired, by the control which the Board of Missions exercises over their conduct. The restriction on the liberty of the press, and the extravagance complained of, is not justly chargeable to the convention; for, constituted as the board is, it is impossible it should be otherwise, and the effect naturally arises from employing an irresponsible body. I am well satisfied that harm results to the cause from want of full confidence being extended to those who are engaged in these duties.

Lahaina being the great resort of our whalers in these islands, a survey was made of the roadstead. The chief reason for resorting to this place is, that their crews are more easily kept in order, and have not that temptation to visit the shore that is experienced at Honolulu; besides, provisions are in greater plenty, particularly potatoes, which are raised in abundance on the highlands of Maui.

Lahaina contains about three thousand inhabitants. More order reigns here than in any other town of the same size I have seen in Polynesia. This is to be attributed to the influence exerted by the authorities, and to the absence of foreigners, and their attendant grog-shops.

The district of Wailuku is composed of valley and upland. The soil in the former is extremely rich and well watered; the upland, also, produces good crops when sufficient moisture can be had. Potatoes, corn, sugar-cane, and sweet-potatoes, are the chief products of the windward side of the island.

In some places there are extensive woods, the trees in which are of large size; but the timber is of little value, being either soft and spongy, or hard and difficult to work. Of the former kinds the natives make their canoes.

The district of Kula, on East Maui, although extremely rough and rocky, has a loamy, rich, and productive soil: it produces the finest Irish potatoes, turnips, corn, melons, and wheat. The latter, of an excellent quality, is found growing wild. It was introduced about twenty years before our visit, planted, and not the least attention paid to it; instead, however, of "running out," it has increased. At Malaca Bay there is good anchorage for vessels of any size, and a fine fishery.

The isthmus is too dry to be fit for cultivation: it is in extent about twenty by fifteen miles. During nine months of the year it is a fine grazing country, and feeds large herds of cattle, that are mostly owned by foreigners.

The productions on Maui are the same as those of the other islands: to these may be added a few fruits, as grapes, &c., but these are not raised in large quantities.

In industry and enterprise, the natives of this island have made but slow progress, though there is abundant evidence that they possess both, if properly developed. This is shown in their attempts at cultivation.

Both at Wailuku and at Hamakualoa, the natives have shown much perseverance and enterprise in erecting stone churches. These are built by native workmen, and their dimensions are one hundred feet in length, by fifty feet in width. For

the construction of that at Hamakualoa, they were obliged to bring the stones, lime, and sand, on their backs, to the place of building. The lime and sand were brought from a distance of two or three miles, and the timber was dragged from four to six miles. In putting on the roof, it fell in twice, after nearly all the timbers were up, and broke them to pieces; but they persevered until they had completed the edifice, which will contain about one thousand people. The whole amount of money laid out was sixteen dollars! At Wailuku the building-stone used was vesicular lava.

The following may give some idea of the duties of a missionary at these islands. Their labours on the Sabbath are, a sermon at sunrise, Sabbath-school at eight o'clock, sermon again at eleven o'clock, Bible-class at one, and lecture at four. On week-days, going to adjacent villages, lectures, schools, and visiting the poor and needy, besides acting as physician for a whole district, which alone is a work of no trifling labour.

In Wailuku, the population is thought to be decreasing at the rate of about one hundred and thirty annually, but no adequate causes are assigned for this diminution. The climate of Maui is healthy, and no diseases prevail. Infanticide may be said not to exist.

I have before stated, that Messrs. Pickering, Drayton, and Brackenridge were ordered to visit Maui. They had a long and tedious passage, and instead of reaching Maui in a few hours, as they had expected, they were several days, owing to a strong south-west gale blowing. By this they were obliged to take shelter under the lee on the north side of Maui, where Dr. Judd and Mr. Drayton landed, for the purpose of passing overland to Lahaina.

The north coast of East Maui is a succession of deep ravines, which gradually diminish in breadth as they ascend, and are finally lost on the flanks of the mountains: travelling along the coast, in consequence, becomes almost impossible. Cascades are seen falling in these ravines several hundred feet in height, having little volume of water however.

The face of Mauna Haleakala is somewhat like that of Mauna Kea: it is destitute of trees to the height of about two thousand feet; then succeeds a belt of forest, to the height of six thousand feet, and again, the summit, which is cleft by a deep gorge, is bare.

During their stay under the lee of the island, the king's schooner sought refuge there also, having been driven from the roads of Lahaina, where it is impossible to lie during the prevalence of south-west gales, as vessels are then exposed both to the sea and wind.

The party who landed, and the schooner, arrived about the same time at Lahaina, where our gentlemen were very kindly received by the king and missionaries. They forthwith made preparations for a tour to East Maui. The Rev. Mr. Andrews, his son, and four students of the seminary, joined the party, together with six Kanakas to carry their food. The Kanakas were engaged at twenty-five cents a day, and twenty-five cents more was allowed for their food. The party first passed to Wailuku, where it was further increased by the accession of Mr. Bailey.

Crops of Irish potatoes are very productive here;

and corn is abundant a thousand feet higher up the mountain.

The next day, the party set out at an early hour, in hopes of reaching the summit, but it began to rain violently, in consequence of which they took shelter in a large cave, at an altitude of eight thousand and ninety feet. Here many interesting plants were found, among which were two species of *pe-largonium*, one with dark crimson, the other with lilac flowers; the *argyroziphium* began to disappear as they ascended, and its place was taken up by the silky species, which is only found at high altitudes. From the cave to the summit they found shrubby plants, consisting of *epacris*, *vaccinium*, *edwardsia*, *compositæ*, and various *rubiceous* plants.

On their arrival at the edge of the crater, on the summit, the clouds were driving with great velocity through it, and completely concealed its extent. The height, as ascertained by the barometer, was ten thousand two hundred feet. The driving of the sheet before the strong gale soon affected the missionaries and native students, the latter of whom, for the first time, felt the effects of cold. The limit-line of woods was ascertained to be at six thousand five hundred feet.

The crater of Haleakala, if so it may be called, is a deep gorge, open at the north and east, forming a kind of elbow: the bottom of it, as ascertained by the barometer, was two thousand seven hundred and eighty-three feet below the summit peak, and two thousand and ninety-three feet below the wall. Although its sides are steep, yet a descent is practicable at almost any part of it. The inside of the crater was entirely bare of vegetation, and from its bottom arose some large hills of scoria and sand: some of the latter are of an ochre-red colour at the summit, with small craters in the centre. All bore the appearance of volcanic action, but the natives have no tradition of an eruption. It was said, however, that in former times the dread goddess Pele had her habitation here, but was driven out by the sea, and then took up her abode on Hawaii, where she has ever since remained. Can this legend refer to a time when the volcanoes of Maui were in activity?

Of the origin of the name Mauna Haleakala, or the House of the Sun, I could not obtain any information. Some of the residents thought it might be derived from the sun rising from over it to the people of West Maui, which it does at some seasons of the year.

Our gentlemen made excursions to the crater, and descended into it. The break to the north appears to have been occasioned by the violence of volcanic action within. There does not appear any true lava stream on the north, but there is a cleft or valley which has a steep descent: here the soil was found to be of a spongy nature, and many interesting plants were found, among the most remarkable of which was the aborescent *geranium*.

The floor of the crater, in the north branch, is extremely rough, and about two miles wide at the apex, which extends to the sea. In the ravines there is much compact argillaceous rock, similar to what had been observed on Mauna Kea, retaining, like it, pools of water. The rock, in general, was much less absorbent than on the mountains of Hawaii.

Mr. Drayton made an accurate drawing or plan of the crater, the distances on which are estimated,

but the many cross bearings serve to make its relative proportions correct. Perhaps the best idea that can be given of the size of this cavity, is by the time requisite to make a descent into it, being one hour, although the depth is only two thousand feet. The distance from the middle to either opening was upwards of five miles; that to the eastward was filled with a line of hills of scoria, some of them five or six hundred feet high; under them was lying a lava stream, that, to appearance, was nearly horizontal, so gradual was its fall.

On their return to Lahaina, Dr. Pickering and Mr. Brackenridge took the route through the Wailuku Pass, as it is called, which with its rocky peaks shooting upwards several hundred feet directly above them, reminded them of the deep gorges of Madeira. Some fine plants were collected, and unexpectedly among the most conspicuous was a woody lobelia, which gave its character to the vegetation. The route did not prove so much shorter as was anticipated, owing to the oblique direction of the valley.

It may now perhaps be as well to say a few words respecting the operation of foreign opinions upon the natives, who are more prone to take knowledge and advice from the books that are circulated among them, than strangers are inclined to believe. Their gambling propensities appear to have been very difficult to overcome; yet, from the simple sentence, "Do not gamble" having been printed in the first books circulated among them, that expression has become almost proverbial, and many have in consequence been restrained from indulging in gaming to excess, while some have abandoned the practice altogether.

From the inquiries I made on the subject of their vices, I am satisfied that these have been much overrated by both residents and missionaries, and I fully believe that these natives are as susceptible of correct impressions as any other people.

They appeared to me to be wanting in that national pride which was found a predominant trait in the groups we had previously visited. They speak less of their country than other Polynesians; but Mr. Richards and Dr. Judd both assured me that they felt a certain degree of pride in their respective islands. As an instance of this, it was stated to me that the government proposing to make the island of Kahoolawe a place for convicts, wished to induce the people of the island to quit it; but no persuasion could prevail on them to do so; and it is said that this feeling has existed to such an extent there, that the young women have refused to marry, unless under a pledge that they shall not be required to remove. The people of Hawaii consider themselves superior to those of the other islands; next to them rank the natives of Maui and Oahu, while Kauai is looked upon as the most inferior. It was likewise mentioned that some individuals have come forward to ask to exchange plots that had been assigned to them, for those on which their fathers had resided, or where they were born.

I was much amused to hear that when one of the teachers of the seminary gave out to the class as a theme, "Whether it was right for parents to give away their children?" all belonging to it took the affirmative side! It is not to be supposed that their reasons were very strong, but it was said the

principal one urged was the difficulty of travelling with them, and procuring food; this practice having prevailed from time immemorial, they no doubt endeavoured to find reasons to justify it.

In the opinion of a native, the most distant relationship or connexion, justifies him in calling on and receiving entertainment. They not only consider that they have a right to partake of the hospitality, but speak of it as a great convenience; so that in choosing a wife or husband, one who has many relations is a more desirable match on this account than one who has few. This custom also causes more intercourse between the islands than would otherwise take place, and their small vessels seldom pass from one to the other, without being well filled with passengers.

Among the visits I paid at Lahaina, was one to the regent Kekanuolu, who receives visitors during certain hours of the day. She lives in a grass-hut near the water, and has several chiefs in attendance on her: she appears to be a good-natured and contented person, and has adopted some foreign customs in her way of living. She is not spoken of as being equal to her sister, Kaahumanu or Kinau.

It has been mentioned, that on our passage from Hilo we had not found the shoal said to exist off Kahoolawe. Receiving authentic information that it really existed, I determined to send two boats, under the command of Lieutenant Budd and Passed-Midshipman May, to seek for and examine it. The king, learning my intentions, volunteered to send his yacht along with them. The yacht and boats set out on this expedition, on the 17th of March, with a pilot who knew the ground.

On the same day we took leave of our kind friends, and at noon got under way and stood for Kahoolawe, to pick up the boats under Lieutenant Budd. Owing to the light wind, we did not succeed in reaching the point till late, where we found the king's schooner and the two boats about to enter upon the examination. We, therefore, lowered all the boats and sent them to search for the shoal. It was soon found, and proved to be much nearer the point of the island than was anticipated. It lies a mile and a half off the point, and has one and a half fathoms of water on it. We fixed bearings, by noting which, it may be avoided. Vessels may pass within two miles of the point with safety; but as it is difficult to estimate the distance, it will be better to pass the point at three miles distance, as nothing is lost by so doing. It is remarkable, that this is the only shoal around the Hawaiian Islands that is hidden from the navigator; and even this is situated so near the land that it can scarcely be deemed dangerous.

At nine o'clock, we took up the boats and bore away for Oahu. Passing to the southward of Lanai, though at the distance of twenty miles, we felt the effects of its highlands upon the winds.

Lanai is a dome-shaped island, and appears to have been frequently rent, large fissures being apparent on its sides. It is exclusively of volcanic formation.

After passing Lanai, I hauled up for Molokai, intending, as the day was far advanced, to lie under the lee of that island for the night. Molokai is about forty miles long and nine miles in width. One-third of the island, towards the western end, is a barren waste, not susceptible of cultivation, ex-

cept in the rainy season; it has in consequence few inhabitants, who are engaged mostly in fishing. The eastern two-thirds are almost one entire mountain, rising gradually from the south, until it attains an elevation of two thousand five hundred feet; while on the north, it is almost perpendicular.

On the south side, it has a narrow strip of land, not exceeding one-fourth of a mile in width, the soil of which is very rich, and which contains the greater part of the population. Owing to the want of moisture, however, few plants will thrive even here; resort is therefore had to the uplands, which are found to be susceptible of the highest degree of cultivation.

The amount of arable land, or that susceptible of cultivation, is believed by the missionaries to be one-fourth; but I should be inclined to reduce it to one-eighth, from the report of others, and my own observations. Only about one-tenth of this is cultivated.

The population of the island was reported as five thousand, in 1840; eight years prior, in 1832, it was six thousand: during this time, five hundred marriages took place. The data has shown, that the births much exceed the deaths; and the decrease is attributed to emigration, which has been going on for some time. The inhabitants are all

poor, and their pastor, the Rev. Mr. Hitchcock, asserts, that there are not ten individuals on the island who have comfortable clothing, and sufficient food; and he adds, that there has been no improvement in their dwellings for the last ten years.

The schools on this island are little more than a name; for they have neither regular teachers nor school-houses. One thousand scholars are said to be embodied in them.

The island has been occupied as a missionary station since 1832, and the church contains about three hundred members.

There are several small harbours within the reef, on the south side, at Kaluaaha, the missionary station, which are capable of affording shelter for vessels of from sixty to eighty tons.

On the 18th, we anchored off Honolulu, at an early hour, although too late to enter. The appearance of the island was much more fertile, now that the winter had passed. There being no letters from home, was a disappointment to us all. We were again warmly welcomed by our friends and countrymen.

On the 19th, we went in and anchored in the outer harbour, where on the 23rd we were joined by the Porpoise.

CHAPTER XXX.

PAUMOTU GROUP AND PENRHYN ISLAND.

CRUISE OF THE PORPOISE IN THE PAUMOTU GROUP—EXPERIMENTS MADE—PENRHYN ISLAND—THE PORPOISE RETURNS TO HONOLULU.

THE disposition that was intended to be made of the Porpoise during the winter months, has been mentioned in a preceding chapter; an account of her proceedings in the prosecution of the duties assigned to her, will now be given.

On the 15th November, 1840, as has been before stated, she left Oahu. In addition to her crew, a number of Kanakas were shipped for the purpose of being employed, under the direction of an officer, on one of the coral islands, to bore through the coral rock.

The first shoal searched for was that of Manuel Rodriguez: its supposed locality, in longitude 153° 54' W., and latitude 10° 58' N., was passed over, and no indications whatever of it were seen.

On the 11th December, they made the island of Manhi, of the Paumotu Group, and shortly after, that of Ahii, or Peacock Island.

On the 13th, they made the Rurick Chain.

On the 15th they reached Aratica, or Carlshoff Island, on which Lieutenant-Commandant Ringgold had determined to land the party intended to experiment in boring, consisting of fifteen men, under Lieutenant Johnson, among whom were nine Kanakas and three seamen, the armourer with his forge, and a carpenter. Lieutenant Johnson was put in charge of the party to conduct the experiments.

By the 18th, they had succeeded in completing all the arrangements, when the brig left them to

pursue her cruise for thirty or forty days to the windward part of the group.

On the 19th, they made Viucennes and Raraka Islands.

On the 20th, they made Saken Island, which proved low, with but a few trees on it: the greater part of the island is a reef.

The next day they were up with the three small islands to the southward of Saken, which they had been directed to look for and survey. Lieutenant-Commandant Ringgold found and surveyed them, and designated the cluster as the Sea-Gull Group; while to the three islands he gave the names of Passed-Midshipman Reid and Bacon, and Quarter-Master Clute. Reid Island proved to be inhabited, and the brig was boarded on it by two canoes. These contained four natives, besides a toothless old man calling himself a missionary, who readily consented to remain for the night on board. The Tahitians on board had no difficulty in understanding them.

On the 22nd, several of the officers visited Reid Island. Its population consisted of about twenty-five men, women, and children, among whom was the daughter of the old chief, considered by our officers as a very beautiful girl, with fine figure, expressive countenance, and long silky hair: she was sprightly, but I regret to say, was covered with vermin. The children were fat and chubby.

Lieutenant-Commandant Ringgold, having finish-

ed all the necessary observations, proceeded, on the 23rd, in search of some islands to the eastward. On the 26th they made the island of Raroia, or Barclay de Tolly, and passed close to it. The position assigned to it on the charts proved to be correct.

On the 27th, they made Takurea, or Wolconsky, with Raroia in sight to the southward: there is a passage between them seven miles wide. The former, Wolconsky, is of an oblong shape, ten miles in circumference: its north end is high and thickly wooded with cocoa-nut groves and other trees: its eastern boundary is partly a submerged reef. There is no opening to its lagoon. It was found to be incorrectly placed on the charts.

The search after Camboy's and Merrill Islands proved unsuccessful. The position assigned to them, longitude 141° W., latitude $15^{\circ} 13'$ S. having been cruised over without any appearance whatever of land.

On the 5th January, 1841, they passed near Taweree, or Resolution Island, but found there was too much surf to land upon it. There were about twenty inhabitants, who, on the approach of the brig, came running to the beach with cocoa-nuts to barter. They appeared to be stout men, and were thought to resemble the natives seen at Clermont de Tonnerre.

Taweree consists of two small isles, together about four miles in circumference: it has three clumps of cocoa-nut trees upon it, but of its south and west sides the greater portion is a bare reef. After surveying it, they bore up for the two groups, and the same afternoon passed through the channel between them, which is a mile wide, with no soundings. The southern island was surveyed: it has a bare reef on its south-east and west sides, with a cocoa-nut grove on the south end. No entrance exists to the lagoon, and no natives were seen. The southern portion of the northern isle is a bare reef, with some high clumps of trees on the eastern side.

On the 6th, Nukutipipi or Margaret's Island was made. It proved to be a small round lagoon island, two miles in circumference, high and well-wooded on the north side, with a flat submerged reef on the south-east and east sides. After completing the observations, they stood for Teku or the Four Crowns of Quiros, the island to the westward: it has now five clumps of trees. It had no opening to its lagoon, nor could a landing be effected. No traces of inhabitants were seen on either of the islands.

On the 10th, Lieutenant-Commandant Ringgold made what they supposed to be the island of Archangel, but very much out of place. It is a small lagoon island, of oblong shape, lying north-west and south-east; wooded on the north-east and east with a stunted growth of trees. No cocoa-nut trees were seen, and the eastern portion of the trees appeared as if burnt. A reef extends off the north-west and south-west sides, with a heavy surf, and there is a submerged reef on the south and west sides. No opening exists, and a landing cannot be effected without imminent danger to the boats. Its native name is Herctua.

The supposed location of Archangel was then searched for, but no signs of land found. Turnbull Island was also looked for without success.

On the 12th, they made the island of San Pablo, in latitude $19^{\circ} 56'$ S., longitude 145° W. This

island is higher than those just mentioned: it has several cocoa-nut groves, and natives were seen on the island. No opening was observed into its lagoon.

After searching around this locality for other islands, the Porpoise steered to the northward, for the island of Aratica (Carlishoff). On the 15th they made the island of Tahanea: its south end is a bare reef, but there are trees on the east and west sides. Fires were seen after dark on the island. This, like all the other islands, has small islets around it, connected by low coral reefs, and washed by the sea in several places.

Passing in sight of Saken, Raraka, and Taiara, they made Aratica on the 18th, where they found the party all well, and at once began to embark them, which was completed on the 19th. The Porpoise then bore away for Tahiti, two hundred and fifty miles distant, which they made on the 21st, and the same day they anchored in Matavai Bay.

At the time the brig left him, Lieutenant Johnson had succeeded in making a beginning with the apparatus. Considering the novelty of the business, and that all were unacquainted with the uses of the different parts of the machinery, I was aware of the difficulty of the task that would be imposed upon the officer who directed the operation. I had therefore designated Lieutenant Johnson for this business, who, on account of his ingenuity, perseverance, and mechanical contrivance, was considered by me as most suitable for this duty. The undertaking proved fully as laborious as I had anticipated, and Lieutenant Johnson's exertions were worthy of better success. The principal difficulties he had to encounter were the looseness of the sand, and the falling in of the coral stones. Every means were devised to overcome these impediments, but in the attempts the pipes became choked, broke, and were thrown out of the perpendicular. When the impediments in one place were found to be too great to be overcome, it was abandoned, and the work began anew. The greatest depth to which he succeeded in reaching was twenty-one feet: ten to eleven feet were generally accomplished without much difficulty; but after that depth was arrived at, they frequently did not succeed in getting down beyond one foot per day.

The coral shelf, composed of conglomerates and compact coral rock, seems to have afforded an impediment to further progress. After the breaking of pipes and augers, and the occurrence of various other accidents, principally from the impossibility of maintaining a perpendicular; Lieutenant Johnson began from his acquired experience to hope for success a day or two previous to the arrival of the brig, when the whole was abandoned by order of Lieutenant-Commandant Ringgold, and every thing embarked. I am well satisfied that there is no insuperable difficulty in boring into coral islands; but in the present case the season of the year was somewhat against them, as it caused them to encounter much more water in the soil than they would otherwise have met with. The proper season for such an attempt would be the dry one. Much rain fell during their stay; and although no serious sickness occurred, yet many felt unwell.

These experiments turned out very much as I anticipated, viz. that we should find but little

coral sand, and an occasional stratum of coral rock. Since my return, I have seen the results of a similar experiment made by Captain Belcher, on another island, (Hau or Bow Island,) in the same group. They are identical with ours.

Among other duties assigned Lieutenant Johnson were tidal observations, which were continued uninterruptedly, from the 19th of December, 1840, till his departure from the island; but unfortunately, the tide-staff was placed in the lagoon, a place not free from objections, because the tide there has but a small rise and fall, and is much influenced by the wind, that blows the water over the reef, giving less tide and a longer outflowing there; but the flood was distinctly seen, by Lieutenant Johnson, during a fishing excursion at the entrance of the lagoon, to flow in rapidly; and the high tide was correct, for the water on the reef was two feet or more in depth. The record of these observations gives the high water at the full and change of the moon at six o'clock: the rise and fall in the lagoon eight inches, and two tides in twenty-four hours. During our visit to this island I had observed a fall of upwards of two feet, and have to regret that the tide-staff was placed in so unfortunate a position.

Lieutenant-Commandant Ringgold now left Tahiti. On the 6th of February, they made Flint's Island, situated in longitude $151^{\circ} 48' W.$, and latitude $11^{\circ} 25' 43'' S.$ It is of small size, being only one mile and a half in length, from north-north-west to south-south-east, and thickly wooded: high breakers extended off its point for some distance, and the surf was so high that it was deemed impossible to land with a boat. No inhabitants were seen.

The next island searched for was one reported to have been seen by Captain Cash. It was discovered on the 8th, and proved to be a low sandy islet with a lagoon. It is well wooded, half a mile in diameter, of oval shape, with heavy breakers surrounding it. Landing was reported to be impossible, and no attempt was made. After determining its position to be in latitude $10^{\circ} 5' S.$, and longitude $152^{\circ} 22' 30'' W.$, they bore away for the position of Penrhyn Island. Lieutenant-Commandant Ringgold believed the island last spoken of to be Staver's Island, and by this name it is designated on our charts. At night the water was very phosphorescent: its temperature 78° .

The Porpoise next passed over the supposed site of Teinhoven Island, without seeing any signs of land, and thence north-west across two positions assigned to Penrhyn's, examining particularly that given by Captain Cash, in latitude $9^{\circ} 58' S.$, and longitude $158^{\circ} 14' W.$ No island, however, was seen. Proceeding further to the north-west, they, on the 15th, discovered land, which proved to be Penrhyn Island, about thirty miles west of its place on Arrowsmith's Chart. It was of the usual coral formation, low, and densely covered with trees, among which the cocoa-nut was the most conspicuous.

The vessel stood off and on all night, and on the 16th, at sunrise, canoes were discovered approach-

ing the brig, in great numbers, many of them large. At seven o'clock, two came alongside, and others soon followed them. As the numbers of the visitors increased, they became more bold, and clambered up the sides, uttering loud and savage yells. They were the wildest and most savage-looking beings that had been met with, vociferating in a frightful manner, and accompanying their exclamations with the most violent contortions and gesticulations: they seemed frantic with excitement. These natives were quite naked, except a few who had on a small maro of cocoa-nut leaves.

Penrhyn Island was by estimate fifty feet high, and was found to be nine miles long, north-north-east and south-south-west, and about five miles wide, with an extensive lagoon, having in it many coral patches: there is a boat-entrance into it. On the north-west side there appears to be a continuous village, with cocoa-nut groves throughout its whole extent, and the island is evidently very thickly peopled: the ferocity of the savages precluded the possibility of attempting a landing.

Lieutenant-Commandant Ringgold induced one of the natives to come on board for a hatchet, and directed him to draw the shape of the island with a piece of chalk; but he proved so wild and was so much amazed, that he did nothing but leap about, constantly uttering exclamations.

It was now deemed impossible to extend the cruise to the Isles of Danger, agreeably to the instructions, on account of want of time and scarcity of provisions. This I regret, as I was very desirous that these islands, pointed out by Admiral Krusenstern, should be examined. This cruise would also have embraced the western positions of Flint's and other islands, as laid down on Arrowsmith's Chart. Compelled to forego this part of his intended task, he stood to the northward; and on the evening of the 24th of March, anchored off Honolulu, after an absence of four months and nine days, only eight of which were passed in port.

The results of this cruise of the Porpoise were satisfactory to me, although it had been found impossible to carry out all the duties embraced in her instructions. The performance of those that were accomplished was attended with much fatigue from the adverse state of the weather, an obstacle I was somewhat apprehensive of, but not to the extent that they experienced. Had I been at liberty, or had time allowed, I should have gladly chosen another season for it. With suitable weather, there would have been ample time to accomplish the whole.

From the report of Lieutenant-Commandant Ringgold, relative to the Porpoise, and on examination of her bottom, the copper was found so far gone as to make it necessary to re-copper her. This cause of detention was unlooked for, and I had been in hopes to give her crew a short relaxation; but there was no opportunity for it. The necessity of a speedy departure admitted of no delay. She was accordingly hauled into the wharf, the work set speedily about, and the brig again prepared for sea.

CHAPTER XXXI.

OREGON.

DEPARTURE FROM OAHU—SEARCH FOR UNKNOWN ISLANDS—BAR OF THE COLUMBIA RIVER—POINT GRENVILLE—DESTRUCTION ISLE—COAST OF OREGON—STRAITS OF JUAN DE FUCA—INDIANS VISIT THE SHIP—PORT DISCOVERY—PORT TOWNSEND—PORT LAWRENCE—PILOT'S COVE—FORT NISQUALLY—ANCHORAGE OFF NISQUALLY—PLAN OF OPERATIONS—EXPEDITION TO THE COLUMBIA RIVER—COWLITZ RIVER—OAK POINT—ASTORIA—VANCOUVER—WILLAMETTE VALLEY—MODE OF CATCHING SALMON—SALMON FISHERIES—THE DALLES—RETURN TO NISQUALLY—PROGRESS OF THE SURVEYING PARTIES.

On the 5th April, 1841, we had completed our repairs, and made arrangements for the transportation of our stores to the Columbia River. The Porpoise was ordered to leave the harbour in the afternoon, and anchor near the Vincennes in the outer roads. Towards sunset we took leave of our kind and numerous friends, and the same night at 11^h 30^m, the signal was made for getting under way. We soon afterwards made sail, and steered to the westward, in order to pass between the islands of Oahu and Kauai.

In proceeding to the north, I was desirous to pass over a portion of the sea that had not been examined by preceding navigators, particularly as it is confidently believed by many persons in the Hawaiian Islands, that land existed in the neighbourhood where we now were. I was, therefore, anxious to make search for it in such places as had not been explored by others, and I had procured a chart, showing the tracks of Portlock and others. This search was made as closely as time and opportunity permitted, but ineffectually. I am, however, far from satisfied that land may not exist in this quarter, for we in fact did little in the way of exploration, in consequence of the foggy and hazy weather which limited our view.

The part of the Northern Pacific which lies between the latitudes of 33° and 43° N., and longitudes of 140° and 150° W., is particularly subject to fogs and thick weather, and there are few places where indications of land are stronger: thus, numerous birds were seen, of species found only in the vicinity of land. I therefore feel satisfied that although we failed from want of sufficient time for a thorough search, land will be found at some future day within the space just defined.

On the 23th of April, at 6 A.M., we made Cape Disappointment, which we soon came up with. A heavy sea, caused by the strong winds that had prevailed for several days, was running. I, notwithstanding, stood for the bar of the Columbia river, after making every preparation to cross it; but on approaching nearer, I found breakers extending from Cape Disappointment to Point Adams, in one unbroken line.

I am at a loss to conceive how any doubt should ever have existed, that here was the mouth of the mighty river, whose existence was reported so long before the actual place of its discharge was known, or how the inquiring mind and talent of observation of Vancouver could have allowed him to hesitate, when he must have seen the evidence of a powerful flood of fresh water contending with the tides of the ocean, in a bar turbulent with breakers,

in turbid waters extending several miles beyond the line of the shore, and in the marked line of separation between the sea and river water. Such appearances must be constant, and if seen, the inferences could hardly be questionable, that the great river of the west poured itself into the ocean at this point.

Mere description can give little idea of the terrors of the bar of the Columbia: all who have seen it have spoken of the wildness of the scene, and the incessant roar of the waters, representing it as one of the most fearful sights that can possibly meet the eye of the sailor. The difficulty of its channel, the distance of the leading sailing marks, their uncertainty to one unacquainted with them, the want of knowledge of the strength and direction of the currents, with the necessity of approaching close to unseen dangers, the transition from clear to turbid water, all cause doubt and mistrust.

Under such feelings I must confess that I felt myself labouring; and although I had on board a person from the Sandwich Islands who professed to be a Columbia river pilot, I found him at a loss to designate the true passage, and unable to tell whether we were in a right way or not. I therefore, at once, determined to haul off with the tide, which was running ebb with great rapidity, and which soon carried us back into the blue water of the ocean, to wait there until the sea on the bar had in some measure subsided.

The land near the mouth of the river is well marked, and cannot readily be mistaken, and on the summit of the two capes are several lofty spruce and pine trees, which the officers of the Hudson Bay Company have caused to be trimmed of branches nearly to their tops. These serve as conspicuous marks, but our pilot was ignorant of their relation to the channel.

Our passage from Oahu had been no more than twenty-two days, which is unusually short. The first part of it, until we passed in latitude 28° N., beyond the influence of the trades and variables, had been attended with light and contrary winds.

During the night, I took into consideration the loss of time that must arise from awaiting an opportunity to cross the bar, and after due reflection came to the conclusion that it would be better to proceed at once to the Straits of Juan de Fuca, and there begin my work on this coast. At daylight, therefore, I spoke the Porpoise, and immediately bore away to the northward. Signal was then made to her to follow. Both vessels then

proceeded at the rate of eight or ten miles an hour.

The weather was very thick, and the wind south-south-west. At ten o'clock the Porpoise was close under our lee-quarter. I was myself below, when I was informed by the officer of the deck that we had entered disturbed water. A number of birds were around the vessels, and a cast of the lead gave fifteen fathoms. By the time I reached the deck, land was seen through the haze, close aboard. The ship was at once brought by the wind and all the studding-sails taken in.

The weather before long cleared up sufficiently to give us a view of the land, which proved to be Point Grenville of Vancouver, and Destruction Isle. The latter is easily known by some remarkable perforations through a rock near it.

On the 30th, I was in hopes that the wind would continue fair, and enable us to have reached Neah Harbour ere night; but as we approached Cape Flattery and opened the Straits of Fuca, it became contrary. We were therefore compelled to pass the night, which proved dark and rainy, under way. We had but little knowledge of the dangers that might surround us; but our frequent tacks throughout the night showed us that but few existed at the mouth of the straits.

The coast of Oregon, to the south of Cape Flattery, is rocky, much broken, and affords no harbours, except for very small vessels. It may therefore be considered as extremely dangerous, and particularly on account of its outlying rocks. The soundings on this coast, however, I afterwards discovered, may serve as a sure indication by which danger may be avoided, and safety may be insured by not approaching the coast into soundings of less than seventy fathoms.

On the morning of the 1st of May, we found ourselves well into the straits; and as I proposed to defer the survey of this part of them until my return, we hastened to reach Port Discovery, where we anchored at half-past 6 p.m. on the 2nd of May; just forty-nine years after Vancouver, pursuing the track of De Fuca, had visited the same harbour.

The Straits of Juan de Fuca may be safely navigated. The wind will for the greater part of the year be found to blow directly through them, and generally outwards: this wind is at times very violent. The shores of the strait are bold, and anchorage is to be found in but few places. We could not obtain bottom in some places with sixty fathoms of line, even within a boat's length of the shore.

The south shore is composed of perpendicular sandy cliffs, that run back into high and rugged peaks, and is covered with a forest of various species of pines, that rises almost to the highest points of the range of mountains. The highest points themselves are covered with snow; and among them Mount Olympus was conspicuous, rising to an altitude of eight thousand one hundred and thirty-eight feet.

The north shore is rocky, and composed, as far as we could examine it, of conglomerate, and in some few places of a reddish granite.

In the morning we were boarded by a large canoe, with Indians who spoke a few words of English. The principal man of the party was dressed in a coarse coat of red cloth, with the

Hudson Bay Company's buttons, and corduroy trousers. He had neither shirt, shoes, nor hat, although the rain was falling fast. The others were habited in blankets or skins, and wore conical grass hats, resembling in shape those of the Chinese.

The first inquiry was, whether we were Boston or King George's ships, by which terms they distinguish Americans and English.

They brought with them for sale some fish and a few furs. On the latter they appeared to set a high value, and were not a little disappointed when they learned that we had no desire to purchase them. They readily parted with their fine fish for a few fish-hooks and a little tobacco.

It was amusing to us, who had no very exalted opinion of the Feejeans, to observe the contempt our prisoner Vendovi entertained for these Indians, which was such that he would hardly deign to look at them.

Late in the afternoon, we reached and weathered the low sand-point, called by Vancouver New Dungeness, and stood over for his Protection Island. We passed within less than a quarter of a mile of the point, where we had three and a half fathoms water.

After passing that island, an extensive bay opened, on whose shores we saw the long poles mentioned by Vancouver, and represented in his book. The use of these he was unable to discover, but the Indians informed us that they were for the purpose of suspending nets for taking the wild-fowl that frequent these shores in great numbers. On these poles the nets are set up at night, at which time the geese search these grounds for food: fires are then lighted, which alarm the birds, and cause them to fly against the nets, by which they are thrown upon the ground, where, before they have time to recover themselves, they are caught and killed.

The description of Vancouver is so exactly applicable to the present state of this port, that it was difficult to believe that almost half a century had elapsed since it was written. The beautiful woods and lawns of Protection Island, in particular, exist unchanged. The lawns still produce the same beautiful flowers and shrubs, and although closely surrounded by dense woods, do not seem to have been encroached upon by their luxuriant growth, although there is no apparent reason why it should not long ere this have overrun them.

Our anchorage in Port Discovery was close to the shore, in twenty-seven fathoms water. It is a well-protected harbour, and very convenient of access, but the depth of water and the high precipitous banks would almost preclude its being made the seat of a settlement.

The name of Port Discovery was given by Vancouver. It is eight miles long, two miles in average width, and its points, which terminate in low sandy projections, interlock each other. The shores are supplied with large quantities of shell-fish. Protection Island covers it completely to the north, and would render it easily defensive against the most formidable attack. The only objection to it as a harbour is that already spoken of, the great depth of the water, which in the middle is no where less than forty or fifty fathoms, and is often as much as sixteen fathoms close to the shore.

The Indians whom we found dwelling here are of

the Clalam tribe. They occupy a few miserable lodges on one of the points, and are a most filthy race, so much so indeed that to enter their lodges is absolutely disgusting. They are no more than a few rudely-cut slabs, covered in part by coarse mats.

We remained at Port Discovery until 6th May, during which time we were employed in surveying the harbour and exploring the country. Our botanists had a large and interesting field opened to them, and there are few places where the variety and beauty of the flora are so great as they are here. The soil consists of a light-brown loam, but its general character around Port Discovery is a thin, black, vegetable mould, with a substratum of sand and gravel.

Soon after our arrival at Port Discovery, I despatched an Indian with a letter to the fort of the Hudson Bay Company at Nisqually, at the upper end of Puget Sound, to request that a pilot might be sent me. My interview with the native whom I employed for this purpose was amusing. He appeared of a gay and lively disposition: the first thing he did, when brought into the cabin, was to show me a cross and repeat his ave, which he did with great readiness and apparent devotion; but he burst into loud laughter as soon as he had finished repeating it. He and I made many efforts to understand each other, but without much success, except so far as the transmission of the letter to Fort Nisqually, and the reward he was to receive on his return.

On the 6th of May, finding that the messenger whom I had despatched to Fort Nisqually did not return, I determined to proceed towards that place without further delay. We therefore got under way at half-past ten, and beat out of Port Discovery; we then stood towards Point Wilson (of Vancouver), which forms one side of the entrance into Admiralty Inlet. Turning the point, we entered the inlet, and soon anchored in Port Townsend, on its northern side, in ten fathoms water.

Port Townsend is a fine sheet of water, three miles and a quarter in length, by one mile and three-quarters in width. Opposite to our anchorage is an extensive table-land, free from wood, and which would afford a good site for a town.

The bay is free from dangers, and is well protected from the quarters whence stormy winds blow. It has anchorage of a convenient depth; and there is abundance of fresh water to be had. In the afternoon, we landed and examined the table-land and bay.

On the 7th, we had completed the survey; but the wind coming up from the southward and eastward, which was contrary to our intended course, we determined to remain. At noon, there was a favourable change, when both vessels moved up about eight miles, and anchored in what I called Port Lawrence. This is just at the entrance of Hood's Canal, and gave us a view both of it and Admiralty Inlet. The weather was unpleasant, and the only duty that could be performed was that of dredging.

On the morning of the 8th, we made the survey of Port Lawrence, beginning at daylight. This being completed, I took advantage of the tide making to get under way with a fresh breeze, and passed with both vessels as far as a small cove on the west side of the inlet opposite to the south end

of Whidby's Island. Here we anchored before sunset, and I named it Pilot's Cove, from the circumstance of having been here joined by the first officer of the Hudson Bay Company's steamer, commanded by Captain M'Niel, who on hearing of our arrival, kindly sent him down to pilot up the ship.

We were under way soon after daylight, taking advantage of the tide, and continued beating as long as it lasted. This was about two hours, by which time we reached another small cove. This was named Apple-Tree Cove, from the numbers of that tree which were in blossom around its shores. This cove answers well all the purposes of a temporary anchorage. Before the tide began to make in our favour, we again sailed, and at dark anchored under the west shore, near a fine bay; which the next day was surveyed, and named Port Madison. This is an excellent harbour, affording every possible convenience for shipping.

The wind proved fair the same afternoon, and we passed up Admiralty Inlet, taking the passage to the right of Vashon's Island, and finally, towards evening, anchored just below the narrows leading into Puget Sound, within a few yards of the shore and under a high perpendicular bank, in sixteen fathoms.

The shores of all these inlets and bays are remarkably bold; so much so, that in many places a ship's sides would strike the shore before the keel would touch the ground.

On the 11th of May, we again weighed our anchors, but had great difficulty in getting beyond the reach of the eddy winds occasioned by the high banks. The scenery about this pass becomes very fine: on all sides are high projecting bluffs of sandstone, rising almost perpendicularly from the water, with a great variety of shrubs along their base. The tide, which runs through the narrows with great velocity, causes many eddies and whirlpools, through which a ship is carried with extraordinary rapidity, while the danger seems to be imminent. The Porpoise succeeded in entering the narrows first, and in a few minutes was lost sight of; the Vincennes entered, and seemed at first to be hurrying to destruction, with her sails quite aback. We were carried onward wholly by the force of the tide, and had backed and filled only once before we found ourselves in as spacious a sound as the one we had just left. This narrow pass seems as if intended by its natural facilities to afford every means for its perfect defence.

Twelve miles more brought us to the anchorage off Nisqually, where both vessels dropped their anchors about eight o'clock. Here we found an English steamer undergoing repairs. Soon after we anchored, I had the pleasure of a visit from Mr. Anderson, who is in charge of the fort, and Captain M'Niel. They gave me a warm welcome, and offered every assistance in their power to aid me in my operations.

Nothing can exceed the beauty of these waters, and their safety: not a shoal exists within the Straits of Juan de Fuca, Admiralty Inlet, Puget Sound, or Hood's Canal, that can in any way interrupt their navigation by a seventy-four gun ship. I venture nothing in saying, there is no country in the world that possesses waters equal to these.

The anchorage off Nisqually is very contracted, in consequence of the rapid shelving of the bank, that soon drops off into deep water. The shore rises abruptly to a height of about two hundred feet, and on the top of the ascent is an extended plain, covered with pine, oak, and ash. Fort Nisqually, with its out-buildings and enclosure, stands back about half a mile from the edge of the table-land.

I now put my plans into operation. The Porpoise, with two of the Vincennes' boats, under Lieutenant-Commandant Ringgold, were directed to take up the survey of Admiralty Inlet. The launch, first cutter, and two boats of the Vincennes, were placed under the command of Lieutenant Case, to survey Hood's Canal. The land party intended to explore the interior, was placed under the command of Lieutenant Johnson of the Porpoise. Eighty days were allowed for the operations of this party, which it was intended should cross the Cascade Range of mountains, towards the Columbia, and on to Fort Colville, and south to Lapwai (the mission station on the Kooskooskee river), thence to Wallawalla, and returning by the way of the Yakima river, repass the mountains to Nisqually. Dr. Pickering and Mr. Brackenridge were of this party.

The other land party consisted of Messrs. Drayton and Waldron of the Vincennes, myself, and two servants. Our intended route lay across the country to the Columbia river. First, I proposed to visit Astoria, then Fort Vancouver, and the Willamette settlement, and to proceed up the river as far as Wallawalla. From Astoria I proposed to send parties from the Peacock into the interior, and to set on foot the survey of the Columbia river, by means of her boats.

The establishment of an observatory also claimed my attention: a suitable site was found on the top of the hill, within hail of the ship. Here the instruments and clocks were landed, and put up in a small clearing, whence the trees had been cut in order to supply the steamer with fuel.

All these preparations occupied us until the 15th, when the brig was reported as ready, and sailed the same day.

In returning the visits of Mr. Anderson and Captain M'Niel, I had an opportunity of examining Fort Nisqually. It is constructed of pickets, enclosing a space about two hundred feet square, with four corner bastions. Within this enclosure are the agents' stores, and about half a dozen houses, built of logs, and roofed with bark. This fort was considered quite large when it was first established, but since it has become an agricultural post as well as a trading one, it is found to be too small. Its locality is also ill chosen, on account of the difficulty of obtaining water, which has to be brought from a distance of nearly a mile. I was informed that there was now little necessity for any sort of protection against the Indians, who are but few in number, and very peaceably disposed. Mr. Anderson and Captain M'Niel both reside in the fort with their families: both are married to half-breeds, and have several fine children.

Having seen the other parties all off, or ready to start, our party for the Columbia river also set out. It was a strange cavalcade, for most of us were but sorry horsemen, and we had every variety of accoutrements, from the saddle and bridle to the

bare back and halter. We were eight in number: Messrs. Drayton, Waldron, and myself, two servants, two Indians, and a Canadian guide, with four pack-horses. All the horses and the guide were kindly furnished us by the gentlemen at the fort, to carry us as far as Cowlitz Farms, about sixty miles distant, where we intended taking canoes.

The direction of our route was nearly south over the plain, passing occasionally a pretty lawn, and groves of oak and ash trees. At the distance of nine miles we reached the river Nisqually, whose channel is sunk three hundred feet below the plain, between almost perpendicular banks. The ravine is about half a mile wide, and is filled with a large growth of timber, which is occasionally uprooted by the torrents that pass down, on the melting of the snows of the mountains. The usual bed of the stream is about one hundred yards wide, with a rapid current: its course in this place was north-north-west, and its average depth at the ford about three feet.

After crossing Shute's river, in all respects similar to the Nisqually, we encamped, just before night, having travelled about twenty-two miles. Our tents were pitched, and fires made; but on examining our alforças (or saddle-bag), we were reminded that we were but novices in such travelling, for we found that all our small stores had been destroyed in fording the streams, the sugar being turned into syrup, &c. This was a mishap over which we had a hearty laugh; it rendered the part that was saved doubly precious, and made us enjoy our evening meal.

In the morning, when we resumed our journey, the park scenery increased in beauty, and it was almost impossible to realize that we were in a savage and wild country, and that nature, not art, had perfected the landscape. Beautiful lakes, with greensward growing to the water edge, with deer feeding fearlessly on their margin, and every tint of flower, many of which were not new to our gardens at home, strewn in profusion around; we could hardly, in galloping along, but expect to see some beautiful mansion, as a fit accompaniment to such scenery.

The Cowlitz river, the east fork of which we passed at a short distance from our encampment, takes its rise in the Cascade Range, near Mount Rainier, and has many short turns in it. Its banks, until it approaches the Columbia, are tolerably high.

When I examined the Cowlitz in the month of September following, I found it exhibiting a very different character. A few miles above its mouth there was not water enough to float even a boat, and it was besides filled with rapids. It is not navigable for barges more than three months in a year. The distance we passed down the Cowlitz did not exceed twenty-six miles, although we had been told that it was more than forty.

On entering the Columbia our Indians required some rest, and said they were hungry; we therefore concluded to stop for a short time on its banks. If I were to judge of the whole Cowlitz tribe from the specimens we had with us, I should say they were the merriest set of fellows I ever saw, full of fun, and laughing all day long: I became at last wearied with their incessant gaiety.

The Columbia, where the Cowlitz joins it, is a

broad flowing stream, and was at this time much swollen. We had, after entering it, about forty miles yet to make, and it was past noon; but we glided briskly on with the current, although it was by no means so rapid as I had expected to have found it.

About ten miles lower down, we passed Oak Point, where the river turns nearly at right angles, taking its course along a barrier of trap rocks, which it here meets on its west side, and which rises eight hundred feet perpendicularly above its surface. On the other side of the river is one of the remarkable prairies of the country, covered with tall waving grass, and studded with many oaks, from which the point takes its name. What adds additional interest and beauty to the scene is Mount St. Helen's, which may be seen from the sea when eighty miles distant: its height I made nine thousand five hundred and fifty feet.

In this part of the river, which I named St. Helen's Reach, we met the brig that had brought our stores from Oahu. The master informed me that he had landed them at Astoria, and placed them under the care of Mr. Birnie, who had charge of the Company's fort. By sunset we had reached Termination Island, and had yet twenty miles to make in a very dark night. We had already passed the only place where we could have encamped, and the natives showed extreme reluctance to go on. They soon desired to return; saying that the night was very dark, and that the bay would be dangerous. This request was overruled, however, and we continued our course, though under apprehension of disaster.

I now began to have misgivings that we should pass Astoria, and commenced firing muskets, the usual signal of an arrival. They were immediately answered by others just behind us, and the loud clamour of about forty yelping dogs. These sounds, although discordant, gave us the delightful assurance that we had reached our destination, and might now make our escape from the confined and irksome position we had been in a whole day. Mr. Birnie, the agent of the Hudson Bay Company, met us at the landing, with lanterns and every assistance, and gave us a truly Scotch welcome. We soon found ourselves in his quarters, where in a short time a fire was burning brightly, and his hospitable board spread with good cheer, although it was past midnight. After partaking of the supper, blankets were furnished us, and we were made exceedingly comfortable for the night.

In the morning we had a view of the somewhat famous Astoria, which is any thing but what I should wish to describe. Half a dozen log houses, with as many sheds and a pig-sty or two, are all that it can boast of, and even these appear to be rapidly going to decay.

The Company pay little regard to it, and the idea of holding or improving it as a post, has long since been given up. The head-quarters of their operations have been removed to Vancouver, eighty miles further up the river, since which Astoria has merely been held for the convenience of their vessels. It boasts of but one field, and that was in potatoes, which I can, however, vouch for as being very fine. In former times it had its gardens, forts, and banqueting halls; and from all accounts, when it was the head-quarters of the North-west Company, during their rivalry with the Hudson

Bay Company, there was as jovial a set residing here, as ever were met together.

In point of beauty of situation, few places will vie with Astoria. It is situated on the south side of the Columbia river, eleven miles from Cape Disappointment, as the crow flies. From Astoria there is a fine view of the high promontory of Cape Disappointment, and the ocean bounding it on the west; the Chinook Hills and Point Ellice, with its rugged peak, on the north; Tongue Point and Katalamet Range on the east; and a high background, bristling with lofty pines, to the south. The ground rises from the river gradually to the top of a ridge five hundred feet in elevation. This was originally covered with a thick forest of pines: that part reclaimed by the first occupants is again growing up in brushwood. From all parts of the ground the broad surface of the river is in view. The stillness is remarkable, and makes it evident that one is yet far removed from civilized life: the distant though distinct roar of the ocean is the only sound that is heard: this, however, is almost incessant; for the stream, though rushing onwards in silence to meet the ocean, keeps up an eternal war with it on the bar, producing at times scenes of extraordinary grandeur.

The Columbia, opposite to Astoria, is four miles wide, but in the middle of the river is an extensive sand-bar, with only a few feet water on it, and at extreme low tides it is bare: the channel is very narrow on each side, and difficult to navigate. At Astoria there is only space for a dozen vessels to lie at anchor, and it would therefore be difficult to accommodate any extensive trade. The point of land extends about half a mile below its site, where Young's river joins the Columbia, and forms a bay.

Our guide, Plumondon, an expert trapper, informed me that the country lying north of the Columbia, between the Cowlitz and Cape Disappointment, is generally rough and rugged, with numerous streams of water, and in many places a rich soil: it is extremely well timbered, and is capable, when cleared, of growing grain, and other agricultural produce.

I witnessed the Columbia at its greatest and least heights, and no idea can be formed of it unless seen at both these epochs. The flood is a very grand sight from the banks of the river at Vancouver, as it passes swiftly by, bearing along the gigantic forest trees, whose immense trunks appear as mere chips. They frequently lodge for a time, in which case others are speedily caught by them, which, obstructing the flow of the water, form rapids, until by a sudden rush the whole is borne off to the ocean, and in time lodged by the currents on some remote and savage island, to supply the natives with canoes. I also witnessed the undermining of large trees on the banks, and occasional strips of soil: thus does the river yearly make inroads on its banks, and changes in its channels.

From the circumstance of this annual inundation of the river prairies, they will always be unfit for husbandry, yet they are admirably adapted for grazing, except during the periods of high water. There is no precaution that can prevent the inroad of the water. At Vancouver they were at the expense of throwing up a long embankment of earth, but without the desired effect. It has been

found that the crop of grain suffers in proportion to the quantity of the stalk immersed: unless the wheat is completely covered, a partial harvest may be expected.

The waters of the Columbia have no fertilizing qualities, which is remarkable when the extent of its course is considered: on the contrary, it is said, from experience, to deteriorate and exhaust the soil. It is, when taken up, quite clear, although it has a turbid look as it flows by. Quantities of fine sand are however borne along, and being deposited in the eddies, rapidly form banks, which alter the channel in places to a great degree.

The situation of Vancouver is favourable for agricultural purposes, and it may be said to be the head of navigation for sea-going vessels. A vessel of fourteen feet draft of water, may reach it in the lowest state of the river. The Columbia at this point makes a considerable angle, and is divided by two islands, which extend upwards about three miles, to where the upper branch of the Willamette joins it. The shores of these islands are covered with trees, consisting of ash, poplars, pines, and oaks, while the centre is generally prairie, and lower than the banks: they are principally composed of sand. During the rise of the river in May and June, the islands are covered with water, that filters through the banks that are not overflowed. This influx renders them unfit for grain crops, as the coldness of the water invariably destroys every cultivated plant it touches.

The Company's establishment at Vancouver is upon an extensive scale, and is worthy of the vast interest of which it is the centre. The residents mess at several tables: one for the chief factor and his clerks; one for their wives (it being against the regulations of the Company for their officers and wives to take their meals together); another for the missionaries; and another for the sick and the Catholic missionaries. All is arranged in the best order, and I should think with great economy. Every thing may be had within the fort: they have an extensive apothecary shop, a bakery, blacksmiths' and coopers' shops, trade-offices for buying, others for selling, others again for keeping accounts and transacting business; shops for retail, where English manufactured articles may be purchased at as low a price, if not cheaper, than in the United States, consisting of cotton and woollen goods, ready-made clothing, ship-chandlery, earthen and iron ware, and fancy articles; in short, every thing, and of every kind and description, including all sorts of groceries, at an advance of eighty per cent. on the London prime cost. This is the established price at Vancouver, but at the other posts it is one hundred per cent., to cover the extra expenses of transportation. All these articles are of good quality, and suitable for the servants, settlers, and visitors. Of the quantity on hand, some idea may be formed from the fact that all the posts west of the Rocky Mountains get their annual supplies from this dépôt.

The Willamette river is generally about one-fourth of a mile wide. For the distance of four miles from its entrance into the Columbia its banks are low, and during the rise of the latter are overflowed, its waters being backed into the Willamette. There is little current to contend with in this river during this season. After passing this low ground,

the banks become high and precipitous, and are in only a few places susceptible of cultivation.

At the time of our visit to the falls of Willamette, the salmon-fishery was at its height, and was to us a novel as well as an amusing scene. The salmon leap the fall; and it would be inconceivable, if not actually witnessed, how they can force themselves up, and after a leap of from ten to twelve feet retain strength enough to stem the force of the water above. About one in ten of those who jumped, would succeed in getting by. They are seen to dart out of the foam beneath and reach about two-thirds of the height, at a single bound: those that thus passed the apex of the running water, succeed; but all that fell short, were thrown back again into the foam. I never saw so many fish collected together before; and the Indians are constantly employed in taking them. They rig out two stout poles, long enough to project over the foaming cauldron, and secure their larger ends to the rocks. On the outer end they make a platform for the fisherman to stand on, who is perched on it with a pole thirty feet long in hand, to which the net is fastened by a hoop four feet in diameter: the net is made to slide on the hoop, so as to close its mouth when the fish is taken. The mode of using the net is peculiar: they throw it into the foam as far up the stream as they can reach, and it being then quickly carried down, the fish who are running up in a contrary direction are caught. Sometimes twenty large fish are taken by a single person in an hour; and it is only surprising that twice as many should not be caught.

The river at the falls is three hundred and fifty yards wide, and its greatest fall twenty-five feet. When the water is not very high, the rapids begin some distance above the falls. Some of the Indians are in the habit of coming down in canoes to the brink of the falls, where they secure themselves by thrusting down poles in the crevices of the rock. There they take many fish, that have succeeded in passing the lower fall, with a hook fastened to the end of a pole. These are esteemed to be of the best flavour, as they are the strongest and fattest. It is said from these places the fish can be seen very distinctly passing up, and are taken very rapidly; but few Indians are willing or expose themselves to the risk of fishing there. The number of Indians at the Willamette Falls during the fishing season, is about seventy, including all ages and sexes: there are others who visit the falls in canoes for fish, which at times will raise the number to not far from one hundred. Those fish which are unable to get up, remain some time at the falls, very much exhausted, and finally resort to the smaller streams below.

In consequence of the interruption of the navigation of its rivers in the dry season, the Willamette Valley will never become a large settlement.

The salmon-fishery may be classed as one of the great sources of wealth, for it affords a large amount of food at a very low price, and of the very best quality: it does not extend above the falls. I found it impossible to obtain any data to found a calculation of the quantity taken, but it cannot be short of eight hundred barrels; and this after the Indian manner of catching them, as before described. The finest of the salmon are those caught nearest the sea.

The settlers and Indians told us that the salmon as they pass up the river become poorer, and when

they reach the tributaries of the upper Columbia, they are exceedingly exhausted, and have their bodies and heads much disfigured and cut, and their tails and fins worn out by contact with the rocks. Many of the salmon in consequence die: these the Indians are in the habit of drying for food, by hanging them on the limbs of trees. This is to preserve them from the wolves, and to be used in time of need, when they are devoured, though rotten and full of maggots. The fish of the upper waters are said to be hardly edible, and, compared with those caught at the mouth of the Columbia, are totally different in flavour. The latter are the richest and most delicious fish I ever recollect to have tasted: if any thing, they were too fat to eat, and one can perceive a difference even in those taken at the Willamette Falls, which, however, are the best kind for salting. There are four different kinds of salmon, which frequent this river in different months: the latest appears in October, and is the only kind that frequents the Cowlitz river. The finest sort is a dark silvery fish, of large size, three or four feet long, and weighing forty or fifty pounds.

One of the most remarkable places upon the Columbia is called the Dalles. The river is here compressed into a narrow channel, three hundred feet wide, and half a mile long; the walls are perpendicular, flat at the top, and composed of basalt; the river forms an elbow, being situated in

an amphitheatre, extending several miles to the north-west, and closed in by a high basaltic wall. From appearances, one is led to conclude that in former times the river made a straight course over the whole; but, having the channel deeper, is now confined within the present limits. Mr. Drayton, on inquiry of an old Indian, through Mr. Ogden, learned that he believed that in the time of his forefathers they went up straight in their canoes.

The country about the Dalles is broken, and the missionaries report that this is the case for some miles around. There are, however, also some plains and table-lands, which are considered as very valuable, being well watered with springs and small streams; excellent for grazing, and well supplied with timber—oak and pine. The soil varies in quality, and portions of it are very rich. Garden vegetables succeed, but require irrigation. Potatoes also must be watered, by which mode of culture they succeed well. Corn and peas can be raised in sufficient quantities. Wheat produces about twenty-five bushels to the acre: this is not, however, on the best land. They sow in October and March, and harvest begins towards the end of June.

I now returned to Nisqually, and found that news had been received from the various surveying and exploring parties, all of which it was reported were advancing rapidly in the execution of their duties.

CHAPTER XXXII.

DE FUCA'S STRAITS AND LOSS OF THE PEACOCK.

FEARS FOR THE PEACOCK—OPERATIONS OF THE PORPOISE—PORT ORCHARD—FENN'S COVE—WHIDREY'S ISLAND—SACHET TRIBE—PORT GARDNER—POSSESSION SOUND—BELLINGHAM BAY—POINT ROBERTS—FRASER'S RIVER—BOAT EXPEDITION FITTED OUT—PROGRESS OF THE SURVEYS—NEAH HARBOUR—CLASSET INDIANS—DE FUCA'S PILLAR—CAPE DISAPPOINTMENT—PARTICULARS OF THE LOSS OF THE PEACOCK—NEW DISPOSITION OF THE SQUADRON—THE VINCENNES SAILS FOR SAN FRANCISCO.

It would be difficult to give the reader an idea of the anxieties that beset me when I joined the Vincennes once more on the 16th June, 1841. Day after day had passed in the anxious expectation of receiving news of the Peacock and Flying-Fish, until a conviction became general, with both officers and crew, that some serious accident had occurred to one or both of them, among the dangerous coral reefs and islands they had been sent to explore. They were now three months later than the time appointed for their arrival at the Columbia river.

For my own part, after reviewing the whole of the duties assigned to Captain Hudson in my instructions, and again estimating the time necessary to fulfil them, I could not but apprehend, from the length to which his voyage was protracted, that disaster had occurred. In this state of feeling, the officers of the Vincennes showed a highly commendable spirit, and aware that additional labours were thus to be thrown upon them, strained every nerve to avoid any further loss of time. The officers of the Porpoise, as I was informed by Lieu-

tenant-Commandant Ringgold, manifested an equally praiseworthy spirit.

With the aid of both wind and tide, we succeeded in getting through the pass at the Narrows before dark, and when this was effected, I anchored under Vashon's Island for the night.

The next day we made but little progress, owing to light winds, and a strong tide against us.

On the 20th we came to anchor in New Dungeness Roads, where we were joined by the Porpoise agreeable to instructions. I shall therefore revert to the surveying operations of the crew of that vessel.

On the 15th of May, the Porpoise left Nisqually, and anchored the first night near the point where the surveys were to begin, but outside of the Narrows.

The first bay at the bottom of Admiralty Sound was termed Commencement Bay. Into this, the Puyallup falls, a small river, ten or twelve miles from Nisqually. Commencement Bay affords anchorage, and a supply of wood and water may be obtained. The Puyallup forms a delta, and

none of the branches into which it is divided are large enough for the entrance of a boat. The Indians were at this season of the year to be found on almost all the points.

The Porpoise was engaged until the 20th in surveying Admiralty Sound to the end of Vashon's Island, and on the afternoon of that day anchored in the Port Orchard of Vancouver.

Port Orchard is one of the most beautiful of the many fine harbours on these inland waters, and is perfectly protected from the winds. The only danger is a reef of rocks, which is nearly in the middle of the entrance. The sheet of water is very extensive, and is surrounded by a large growth of trees, with here and there a small prairie covered by a verdant greensward, and with its honeysuckles and roses just in bloom, resembling a well-kept lawn. The soil is superior to that of most places around the sound, and is capable of yielding almost any kind of production. The woods seemed alive with squirrels, while tracks on the shore and through the forest showed that the larger class of animals also were in the habit of frequenting them.

The next nine days were employed in surveying Port Orchard, which consists of two inner and an outer harbours. The former, although the entrance is by a strait not more than two hundred yards wide, is from two to six miles in width, and extends for a distance of fifteen miles. The water was found deep enough for the largest class of vessels, with a bold shore and good anchorage. Lieutenant-Commandant Ringgold made a set of magnetic observations here.

Near the anchorage were seen three canoes, propped on trees, containing the bodies of Indians. These were visited by Dr. Holmes, who procured a Flathead skull. The bodies were found wrapped firmly in matting, beneath which was a white blanket, closely fastened round the body, and under this a covering of blue cotton. Near by, on stages, were boxes about three feet square, supposed to contain the articles which are deposited by the Indians near the bodies of the dead, and which were not disturbed.

Many Indians, who were all cheerful and well disposed, visited the port during the continuance of the survey.

Port Orchard was found to communicate, on the north, with Port Madison. Lieutenant Maury, with the boats, surveyed this passage, and found that it had a depth of four and a half fathoms water at low tide.

Near this passage is a place where the Roman Catholic missionaries have established a station for teaching the surrounding tribes. A large cross is erected, and a building one hundred and seventy-two feet long by seventy-two wide, which was found to contain many rude images. Many of the natives are capable of saying their prayers and telling their beads, and some were met with who could sing some Catholic hymns in their own language.

The Indians frequenting this port called themselves of the Je-ach-tac tribe.

The next point visited and surveyed was Penn's Cove, between Whidby's Island and the main. This island contains many small villages, and appears to be more thickly peopled than other parts of the sound. It is in possession of the Sachet tribe, who have here a permanent settlement, con-

sisting of large and well-built lodges of timber and planks, similar to those already described on the Columbia and elsewhere. The chief possessed a chest of valuables, carefully preserved in a corner, the contents of which were shown by him with no small pride, and consisted of a long roll of paper, on which were many representations of European houses and churches, together with rude sketches of the heavenly bodies, and a map of America. These had been given to him and explained by the Roman Catholic priest, and he seemed to understand the explanation. This whole tribe are Catholics, and have much affection and reverence for their instructors.

The Sachet tribe are obliged to provide for their defence against the more northern tribes, by whom they are frequently attacked, for the purpose of carrying them off as slaves. For protection against these attacks they have large enclosures, four hundred feet long, and capable of containing many families, which are constructed of pickets made of thick planks, about thirty feet high. The pickets are firmly fixed into the ground, the spaces between them being only sufficient to point a musket through. The appearance of one of these enclosures is formidable, and they may be termed impregnable to any Indian force; for, in the opinion of the officers, it would have required artillery to make a breach in them. The interior of the enclosure is divided into lodges, and has all the aspect of a fortress.

Near the harbour of Port Gardner, a fine stream empties itself into Possession Sound, by four mouths. The water was not found to be sufficiently deep in any of these to admit boats at low water, in consequence of a bar or flat extending across the mouths.

Here they were surrounded by many canoes, containing Indians from the various tribes to the southward, whom they had before seen. The dress of the Sachet does not vary much from that of the other tribes, and generally consists of a single blanket, fastened with a wooden pin around the neck and shoulders. Those who are not able to purchase blankets wear leathern hunting-shirts, fringed in part with beads or shells, and very few are seen with leggings. The women ornament themselves with small brass bells, or other trinkets. The cartilage of the nose is also perforated, and pieces of polished bone or wood passed through it. Although the dress of these natives would seem to offer some concealment to the body, few are seen that wear it with any kind of decency. Their persons are usually very filthy, and they may be said to be at all times coated with dirt. They are fond of wearing brass rings on their wrists and fingers, and a few are seen to be tattooed who have some lines upon the arms and face. They disfigure their bodies by the manner in which they daub themselves with red ochre, mixed with salmon-oil, which, besides being disgusting in appearance, is extremely so in smell.

The brig moved on the 18th June, to the northern outlet of Possession Sound, through Deception Passage. This was not believed by Vancouver to afford a passage for vessels; but, although narrow, it is feasible for those of small size. The tides rush with velocity through it, and there are some rocks in the passage. The Indians had moved from their village to temporary huts on

the beach, where they seemed to enjoy themselves.

Lieutenant-Commandant Ringgold, being informed by the Indians that a passage existed to the north into Bellingham Bay, boats were sent to explore it. The information proved to be correct; but the water was so shoal, that it is, at lowest point, almost a mud-flat; and the channel, besides, is tortuous. This duty being completed, the Porpoise, on the 26th, was moved through the passage, and anchored under one of the small isles at the entrance.

The Indians from various parts of Admiralty Inlet, were constantly around the brig, endeavouring to derive some advantage in the way of trade. They were found to occupy various points, each tribe keeping distinct. Their names were, the Seocomish, Squamish, Clalams, and Sachets, who live in harmony with each other, although they do not scruple to call one another "peshac," or bad; but this epithet is invariably given to those of a different tribe by all the Oregon Indians. The term, however, is applied with greater force to the more northern tribes, who frequently undertake incursions on them, in strong marauding parties, for the purpose of obtaining slaves: they are, in consequence, held in great dread. During the stay of the brig, an alarm occurred, which produced much consternation among them. Many sought shelter in the woods; others went off to their strongholds, and some women sought shelter alongside the brig in their canoes.

These Indians suffer little inconvenience in their changes of residence; for, having but few chattels, they can remove at a few moments' notice; and after landing at an entirely strange place, they are at home the moment their fires are lighted.

The 4th of July was spent near Point Roberts; and on the 5th, the brig reached the mouth of Fraser's river, which is about a mile wide, with a serpentine channel, leading through an extensive mud-flat. Fort Langley, of the Hudson Bay Company, is situated about twenty miles from the mouth. The country immediately around is low, and has a rich alluvial soil. It is inhabited by the Nanitch tribe, who accompanied the brig thither from Birch Bay. The mouth of Fraser's river was found to be six miles north of latitude 49° N.

Lieutenant-Commandant Ringgold, on the 20th, received further instructions from me to push the survey to the north; but being short of bread, he had sent Passed-Midshipman Sandford to obtain a supply, which was at once despatched in the launch, although I expected to meet the brig at New Dungeness in a few days.

On the 20th, as before mentioned, the brig joined the Vincennes at New Dungeness.

I had been in hopes that, after the severe tour of surveying duty for the last three months, I should be able to give the crews some relaxation; but I found this impossible, for the duties were necessarily much increased by the absence of the Peacock and Flying-Fish, and the necessity of finishing as much of the northern survey as possible, as well as obtaining accurate information in relation to the positions, &c. I deemed it of too much importance to allow a day to go by unimproved. Orders were therefore given to the boats under Lieutenant Case to proceed to Port Townsend, to fill up the surveys

and connect them with Hood's Canal and those of Whidby's Island.

Another division of boats, with those of the Porpoise, were employed in surveying New Dungeness Bay, and connecting it with Protection Island, while I was occupied in getting a series of observations for latitude and longitude, dip and intensity, at the low sand point which forms the bay. Orders were also prepared for the Porpoise to proceed to Port Townsend; thence to Fraser's river, visiting Fort Langley: and then through Johnson's Straits, and round the north end of Vancouver's Island, to Nootka Sound.

A large boat expedition was also fitted out, of which I took charge in person, to proceed across the Straits of De Fuca, to complete the survey of the Canal de Arro, with the adjacent bays and harbours, and thence to the mouth of Fraser's river, where I anticipated falling in with the Porpoise again.

On the morning of the 25th, the brig parted company, and in the afternoon I set out, with seven boats, to cross the strait. The wind had been blowing strong, but I did not anticipate much sea or danger. It proved otherwise, however, for the tide was found to be running strong ebb against the wind, producing a very high sea, which made the passage at times perilous. We, however, crossed this distance of twenty miles without any other accident than the loss of a mast belonging to one of the boats, and reached the opposite shore in safety, though completely wet from the quantity of water we had shipped. The boats answered all purposes uncommonly well; and many who had believed them unsafe, were now satisfied that they were admirably adapted for all weathers. Large fires and dry clothes soon restored the men to their wonted good spirits.

On the 26th, we began the survey of this labyrinth of islands, which was continued the next day, 27th, on the afternoon of which I was joined by Passed-Midshipman May, with letters from the ship and despatches from Nisqually, informing me of the loss of the Peacock, on the bar of the Columbia, but that all hands were saved. This news, although bad, was a great relief to me; for I had feared not only the loss of the vessels, but had serious apprehensions for the lives of the persons on board. A heavy load that had long hung over my mind was removed.

All my plans for the employment of the squadron were now at once to be changed; for it became necessary for me to proceed without delay to afford relief to our shipwrecked companions. I therefore immediately sent orders to the Porpoise, countermanding her previous instructions, and ordering her to repair forthwith to join the Vincennes at New Dungeness. On the 28th, the duties of our surveys were again resumed, and a finish made of those of the Canal de Arro. This was effected through the strenuous exertions of both officers and men, and the same night we reached the Vincennes.

Although we had completed all that was essential for the navigation of the Canal de Arro, I regretted that I had been deprived of the opportunity of examining the south-east end of Vancouver Island, which I have reason to believe offers many fine harbours. Three days more would have enabled me to accomplish this portion to my satisfaction.

On the 29th, the brig again joined us, and Mr. T. W. Waldron was at once sent with despatches to Nisqually, to pass across the country to the Cowlitz, and thence down the Columbia to Astoria. Among the despatches was an order to all the ward-room officers of the Peacock, to report to me in writing the circumstances that led to the loss of that ship*.

On the 31st, towards noon, the wind and tide permitting, we got under way, and stood down the Straits of De Fuca; but owing to the light winds, we made little progress. Of the northern side of these straits it had been my intention to make a very particular examination, after completing the survey of the Canal de Arro. I have understood that there is a fine harbour near the eastern end of the island, where a post has been lately established by the Hudson Bay Company; that of San Juan, near the mouth of the straits, the Porpoise was ordered to survey on the 2nd of August, while the Vincennes was engaged in the survey of Neah Harbour, lying on the south side of the straits, just within Cape Flattery. Port San Juan was found to afford little shelter, being exposed to the south-west winds, and the heavy swell of the ocean; and is reported as being unsafe, except for temporary anchorage.

Neah Harbour is but a small indentation in the coast, which is partly sheltered on the north-east by Neah Island. It is the position where the Spaniards attempted to establish themselves in 1572, and which they called Port Nunez Gaona. The remains of an old fort are still to be perceived, and some bricks were found that were supposed to have belonged to it. Water is to be obtained here in some quantity, and a small vessel would have no difficulty in getting enough. It offers a tolerably safe anchorage, though somewhat exposed to the north-west gales; yet by anchoring well in, which a small vessel may do, protection even from these gales might be had.

The ship, on anchoring, was surrounded by many canoes of the Classet Indians, who inhabit the country around Cape Flattery. They were well disposed to trade, and were greatly surprised that so large a ship should want no furs, which were of several kinds: the sea-otter was that most prized, and held at very exorbitant prices, more than they could be bought for in the United States. George, the chief of the Tatonche tribe, as he terms himself, was on board all day. He speaks a few words of English, and is a fine-looking man. It was difficult to make him or any of his people understand the use of a man-of-war, the number of people on board, and the care that was taken to keep them from coming on board. He showed it by continually asking, "What for so big ship?" "What for so many mans?"—all probably proceeding from his disappointment in not being able to sell his skins.

The Classet tribe of Indians is one of the most numerous on the coast that I had an opportunity of seeing, and seems the most intelligent. These Indians wore small pieces of an iridescent mussel-shell, attached to the cartilage of their nose, which was, in some, of the size of a ten cents piece, and triangular in shape. It is generally kept in motion

by their breathing. They had seldom any clothing excepting a blanket; but a few who have contrived to make friends with the visitors, have obtained some old clothes; while others seem to be in the pay of the Hudson Bay Company. The principal articles of trade are tobacco, powder ("paulalee"), and leaden balls. These are preferred to most other merchandise, although more can be obtained for spirits than for any other article. This shows very conclusively, to my mind, the sort of trade that was carried on when the Boston ships entered into rivalry with the North-west Company for the purchase of furs.

On the 3rd, we were engaged in the survey of the harbour, besides obtaining fifteen hundred gallons of water. Its position (the north point of Neah Island) was found to be in latitude $46^{\circ} 24' 40''$ N., longitude $124^{\circ} 36' 46''$ W.; variation $21^{\circ} 8' 14''$ easterly.

We had as many as forty canoes alongside on the 3rd, with various articles for sale, including fish, venison, &c. Some of the canoes had as many as twenty persons in them. They were generally a stout, athletic race; and it was observed that the women were much better looking than those of the other tribes. Some of them, indeed, had quite fair complexions and rosy cheeks. They are not as much exposed to the weather as those we had previously seen, being provided with a conical hut, made of grass, and plaited so tight as to be impervious to water, which both protects them from the rain and sun.

It is said that this tribe can muster one thousand warriors, and they have the reputation of being treacherous and warlike. Many of them were fantastically painted, that is, besmeared with oil, soot, and red paint. Their dress consists of a native blanket, made of dog's hair interspersed with feathers: this is much more highly valued than the bought ones, but is rarely to be obtained. The clamour made by our numerous visitors alongside was very great, and their offers of articles were without much regard to the priority of rank, station, or any thing else.

At 2 p.m. we got under way, with the Porpoise in company, and succeeded in making an offing before the fog enveloped us. These fogs are one of the greatest annoyances to vessels arriving on this coast; for, in fine weather, they are experienced almost daily, coming up with the sea-breeze, continuing throughout the night, and until the sun has sufficient power the next day to dissipate them.

In leaving De Fuca's Straits, I anxiously watched for De Fuca's Pillar, and soon obtained a sight of it.

The morning of the 5th August the Porpoise was discovered astern, which relieved me from any apprehension of detention.

The soundings were somewhat peculiar; for it was found that in our progress down the coast, they increased almost regularly until ninety fathoms was reached; but, a short distance beyond that depth, and at about fifteen miles from the coast, the bank suddenly fell off, and no bottom was to be obtained with a line of two hundred and two hundred and fifty fathoms long.

On the 6th, at daylight, Cape Disappointment was in sight; and at ten o'clock we were near the cape. The Flying-Fish joined us at noon; when Captain Hudson came on board, and from him I

* These will be found published in Document No. 427, House of Representatives, 28th Congress, 1st Session, dated 10th April, 1814.

learned the particulars of the loss of the Peacock.

It will be necessary in the first place to state, that at Oahu, Sandwich Islands, previous to the departure of the squadron on their several cruises, I had furnished the Peacock, Porpoise, and tender, with directions for their passing the bar of the Columbia river, which I obtained from Captain Spalding, of the ship *Lausanne*, a vessel of five or six hundred tons' burden, which had just returned from the Columbia, whither she had taken a number of missionaries and their stores. These appeared to be carefully drawn up, and Captain Spalding informed me that they could be depended upon. The fact that so large a ship had been navigated by them, and the report of the master, that he believed them correct, left me no reason to doubt their probable accuracy; although at the time I had some misgivings about them, as they were entirely dependent on compass bearings, and those of objects at great distances. They were, however, the only directions for passing this dangerous bar which were to be had, and were then believed to be the only correct ones in existence. It was supposed, indeed, that they had been communicated to the Hudson Bay Company by the officers of H.B.M. surveying vessels *Sulphur* and *Starling*; but of this I had no positive evidence; for, although I met those vessels at the Feejee Islands, I received no communication from them on this subject.

The Peacock made Cape Disappointment on the afternoon of the 17th of July, and throughout the night experienced light airs and calms, accompanied by a dense fog.

On the morning of the 18th, between seven and eight o'clock, the fog cleared off, with the wind from the southward and eastward. Cape Disappointment was then about nine miles distant. At nine they sounded in forty fathoms water; at ten, fifteen: they had but fourteen fathoms when they tacked off shore. It being Sunday, Captain Hudson, as usual, performed divine service, which being finished at 11^h 50^m, they again tacked to stand in. The tender at this time was several miles to leeward.

At meridian, the wind came out from the southward and westward, with the weather a little cloudy; soon after which time the ship was off the entrance, and all hands were called to work her into port. Lieutenant Emmons was now sent aloft, on the foretopsail-yard, while Captain Hudson attended personally to the piloting of the ship, agreeably to the directions before spoken of, which he held in his hand. The ship was, according to Captain Hudson's report, running a north-east-quarter-east course, heading for Cape Disappointment, until the proper bearing of Chinook Point east-north-east was reached, when they discovered the sea breaking ahead of them. He now believed himself too far to the southward, wore ship, and ran off a short distance, until clear of the breakers, after which they again stood in, where the passage appeared clear and smooth, both from below and aloft. In less than five minutes, the ship touched. Lieutenant Emmons, who was on the look-out aloft, together with Lieutenant Perry, who also was similarly engaged, both state that they were of opinion that the only place where the channel existed was where the water did not break, and

agreeing as it did so nearly with the sailing directions, Captain Hudson did not hesitate to attempt to proceed through the smoother part.

I am well aware that many opinions have been, and probably still are entertained, relative to the prudence of venturing with the ship before the channel had been explored and examined by the tender and boats. This is but natural to one unacquainted with the bar of the Columbia river and its dangers. After having paid much attention to this subject, and having been engaged there with the tender and boats in the survey, I feel myself entitled to give an opinion as to the course pursued by Captain Hudson, and think it altogether correct, on every ground of expediency, as well as the only proper one for him to have followed under these circumstances. It will be recollected that he had been detained nearly three months beyond his appointed time, and that he was well aware that this would occasion much inconvenience to the progress of our duties; his anxiety to prevent any further delay, even of a few hours, can readily be imagined. The time was, to all appearance, propitious, and hesitation then might have rendered it impossible to have entered for a week. The tender going in ahead would have been little or no security, for she would, undoubtedly, have pursued the same course, and have been, in all probability, lost; and thus the Peacock would have been obliged at last to trust to the knowledge of those on board of her. As respects the examination of the bar in boats, this is a thing next to impossible; for the tides are so strong as to be beyond the power of oars to contend with. To wait until a thorough knowledge could be had of the bar from survey, would have been equally impossible at that time: all were uninformed, or incapable of judging of the accuracy of the directions; but, so far as appearances went, they seemed to be true, and they are such as I should even now give, so far as compass bearings are concerned. But there is one difficulty that will ever exist in passing over the bar, and this, nothing but an intimate acquaintance with the locality will remove. I allude to the cross-tides, which are changing every half-hour. These tides are at times so rapid, that it is impossible to steer a ship by her compass, or maintain her position; and no sailing directions can possibly embrace the various effects produced by them upon a vessel. A singular fact in illustration of this remark is, that the safest time to cross the bar is when both the tide and wind are adverse; and this is the only port, within my knowledge, where this is the case. Captain Hudson, in venturing the attempt to enter the Columbia, manifested the strongest desire to accomplish his orders and forward the objects of the expedition. Disregarding the well-known perils of the navigation, he did not hesitate, when in his judgment the time was propitious, to incur the dangers of the bar, rather than subject the service to a further delay, which might have proved as disastrous to the expedition as the loss of the vessel.

There are no pilots for the entrance of the Columbia river, or rather, none that could be relied upon. Neither old Ramsey nor George deserve the name, nor were there any other persons known, who had any pretensions to be considered as pilots.

Having set this matter at rest, I shall proceed to give the details of the loss of the Peacock.

On the ship striking, the helm was immediately put a-lee, and every practical effort was made to bring her by the wind, and haul off. These efforts were not successful, and the ship, which hung by the keel, began to thump heavily. Every sea forced her further upon the shoal, and as she had now become completely unmanageable, the sails were furled. The stream cable and anchor were got ready, and the first cutter was hoisted out. Lieutenant Emmons was sent to sound around the ship in various directions, in one of the waist boats.

At this time, the wind having veered to the northward and westward, was freshening; the air was hazy and a fog was forming*; the ebb tide had begun to run strong, and meeting, not only the ocean waves, but an opposing wind, in a short time formed breakers which completely enveloped the ship. These breakers soon stove in the first cutter, and rendered her useless. Such was the fury of the sea, that it was with great difficulty Lieutenant Emmons reached the ship, and the boat was secured.

With every sea the ship lifted and struck heavily, and much solicitude was therefore felt lest it should be impracticable to get the launch afloat; but no boat could have lived alongside of the vessel for more than a few moments.

The lighter spars were now sent down, and the pumps were rigged; every exertion was made to save the masts and lower yards, by which the launch might be hoisted out as soon as the sea would permit it.

Captain Hudson, finding that the ship was leaking badly, ordered the watches in gangs to the pumps, which were thenceforward kept in action until the vessel was abandoned. Every possible exertion was made to bring the ship's head to the sea, but without much effect, for the rudder was soon disabled in consequence of the iron tiller being broken off. The rudder was thus left to thresh about with such violence as to threaten to tear away the stern-frame.

At last, by heaving the shot overboard, and starting the water, the ship was so much lightened that, by means of the larboard anchor, which had been cast free of the ship, she was hove round with her head to the sea. At low water, which occurred about dark, there was only nine feet depth of water alongside. At 8^h 45^m the chain-cable parted, the ship was again thrown broadside to the sea, and began again to strike heavily.

At 11^h 30^m it was high water; at 1 P.M. the sea was rapidly increasing; and at 2 A.M., the breakers were making a continued breach over the vessel, by which the bulwarks were stove in, and the spar-deck flooded. The water was knee-deep on the gun-deck, and the shot-lockers were buried in it. The night passed heavily, with little hope of the ship's holding together till morning. At last the day dawned, and with the coming light, and at the extreme fall of the tide, the sea providentially abated.

At six o'clock in the morning, a large canoe boarded the vessel, manned by a crew of Chinook Indians, and having on board old Ramsey, the pilot, with a coloured boy belonging to the Vin-

cennes, of the name of John Dean. The latter, who had been left by me with Mr. Waldron at Astoria, had persuaded Ramsey and the Indians to come off, for the purpose of rendering assistance. The launch and boats were also hoisted out, a few provisions put in them, and a part of the men and officers embarked, with as little delay as possible, and just as they stood, for fear of overloading the boats, and thus causing the loss of all. In these, Lieutenant Perry, with Purser Spieden, the sick, the naturalists, and the charts, books, and ship's papers, were sent off, to be landed in Baker's Bay. The boats landed all not necessary to row them, in safety; and succeeded in making a second trip, in which all who had remained on board were taken to the shore, except Captain Hudson, Lieutenant Walker, the boatswain, the carpenter, and about thirty men.

Towards noon, the breakers again increased; and the sea was making a breach in all directions over the ship, which was filling fast, the water having risen above the level of the berth-deck. The masts were cut away, and the vessel lay a complete wreck, with nothing standing but the stump of the mizzen-mast.

Lieutenant Emmons, who had charge of the boats, was, during this time, using every possible exertion to make a third trip, but without success; and the crews of the boats were the anxious witnesses of the condition of the ship, without being able to relieve those on board from their perilous situation. They persevered, however, in their fruitless and laborious endeavours, until one of the boats, in charge of Mr. Lewis, the gunner, was thrown end over end, and with her crew engulfed. Lieutenant De Haven was fortunately close at hand, and succeeded in saving those on board; all of whom were injured, and one of them severely, by the breaking of his hip-bone.

The intense excitement, both of those in the vessel and in the boats at this moment, may be readily imagined. The accident was seen from the ship: Captain Hudson was satisfied that any immediate attempt to relieve him and his companions must be fruitless; and that the only chance that remained, was to preserve the boats for a future occasion.

He therefore ordered the ensign to be hoisted on the stump of the mizzen-mast, as a signal for the boats to return to the land; which was obeyed by them, although with the feeling that they were abandoning their commander and those with him to their fate. Those on board, on the other hand, were released from their anxiety for the boats, on which alone they could depend for being relieved, if the wreck should remain together for a few hours. Of this, however, the prospect was far from promising, amid the struggle between the waters of the great river and those of the mighty ocean, when every surge seemed to forebode the utter dissolution of the fabric of the ship.

The light articles were now removed to the spar-deck, to give them a chance of reaching the shore by the action of the waves and winds, should the ship go to pieces.

In the midst of this trying scene, the ordinary routine of ship's duty was carried on, even to the piping to dinner. It is needless for me to say any thing in praise of the conduct of Captain Hudson, and I have simply to refer to the letters I received

* During the summer, this wind, haze, and fog occur almost every day in the afternoon.

from the officers and naturalists, in reply to a call I made upon them, for the aspect in which the transactions presented themselves to those present; and more particularly to those of the latter gentlemen, who, as spectators, had an opportunity of witnessing the whole proceedings.

By three o'clock, Lieutenant Emmons, with the boats, was again approaching the ship; but the sea was still too rough to venture near her, and it was not till five o'clock that he succeeded in getting alongside, when the remaining men were distributed among the boats, and embarked in good order, Captain Hudson being the last to leave the ship. After a pull of two miles, they landed in Baker's Bay, when Captain Hudson was received by the other officers and men with three hearty cheers, the spontaneous expression of their admiration and gratitude for the courage and conduct he had exhibited in his efforts for the preservation of the ship, and in finally preserving the lives of all.

The exertions of the officers and men were not yet at an end; for some faint hopes were entertained that a portion of the property might still be saved from the wreck, as a relief in their state of utter destitution; and, in consequence, the boats were despatched the next morning at daybreak to the bar. But nothing was there to be seen of the Peacock, except the cap of her bowsprit; for her upper deck had been separated, and the pieces scattered for many miles along the coast.

Captain Hudson passed the highest encomiums on his officers and crew, for the faithful manner in which they continued to perform their duties and carry out his orders to the very last.

I am satisfied that every thing that seamanship could devise to save the vessel, was resorted to; and I am quite confident that when the facts are all known and fully weighed by the community, the conduct of Captain Hudson, and that of his officers and crew, in this perilous and trying scene, will be considered as redounding to the credit of the service.

Mr. Birnie, the agent of the Hudson Bay Company at Astoria, Messrs. Frost and Koen, the missionaries, with several residents, came promptly to the aid of the shipwrecked crew, with provisions, tents, cooking utensils, and clothing, all vying with each other in affording assistance.

When all hopes of getting any thing from the wreck were at an end, Captain Hudson sent the crew to Astoria, in the boats, with orders to form an encampment there, where they found an ample supply of provisions in the stores that had been sent from the Sandwich Islands, and were supplied with clothing by the kindness of Dr. McLaughlin and the officers of the Hudson Bay Company.

As soon as I learned the exact state of affairs in the river, I determined to make such disposition of the squadron as would be most advantageous, in

the performance, under the new circumstances, of the duties which remained to be accomplished.

With this intent, I resolved to shift my pennant to the Porpoise, and with that vessel, the Flying-Fish, and the boats of the Peacock, to survey the Columbia to its extreme navigable point. This force would be amply sufficient to perform this survey in the shortest possible time, and yet enable me to despatch a party, as I had before intended, through the southern section of the Oregon territory to San Francisco. The Vincennes, to which I ordered Lieutenant-Commandant Ringgold, I resolved to send to San Francisco, to make a survey of the Sacramento river, while I was engaged upon that of the Columbia.

In conformity with this plan, I directed the Vincennes to be off and on at the mouth of the river, while I proceeded in with the Porpoise to make the necessary changes and transfers. Taking Mr. Knox, and Ramsey the pilot, on board the latter vessel, we passed the bar and stood towards Astoria, but were compelled by the tide to anchor before reaching that place. On the morning of the 7th, we anchored in front of Astoria, where all the necessary arrangements were completed; and Lieutenant-Commandant Ringgold, on the next day, proceeded in the Flying-Fish, with the transferred officers, to join the Vincennes. As soon as this was effected, that vessel bore away for San Francisco, and the tender returned to the river.

As it became absolutely necessary to economize our time as much as possible, every disposition was now made of the men and boats. I soon, however, found that, although I had sent a number of men to the Vincennes, there would be many that could not be well accommodated in the smaller vessel, and I was desirous of procuring some extra accommodation. Fortunately, the American brig, the Thomas H. Perkins, Captain Varney, was lying at Astoria; and a reasonable agreement was entered into for her purchase. Dr. McLaughlin, who had entered into a charter party, readily agreed to surrender it for a small consideration, if the goods he had on board were delivered at Vancouver. This there was no difficulty in, as it was found necessary to make some alterations in her accommodations, and it would be necessary to resort to Vancouver for many articles; and these repairs could be easily effected during the time we were engaged in the survey of the river, and better at Vancouver than elsewhere. It was, therefore, determined to proceed up with both vessels, at the time of making the survey.

It is now proper that I should return to the regular order of events, and take up the narration of the interesting cruise of the Peacock, the unforeseen and disastrous termination of which has just been related.

CHAPTER XXXIII.

CRUISE OF THE PEACOCK AND FLYING-FISH FROM OAHU TO THE BAR OF
THE COLUMBIA.

NEW YORK ISLAND—JARVIS'S ISLAND—BIRNIE'S ISLAND—SEARCH FOR ISLANDS—DUKE OF YORK'S ISLAND—DUKE OF CLARENCE'S ISLAND—BOWDITCH ISLAND DISCOVERED—SWAIN'S ISLAND—ISLAND OF UPOLU IN THE SAMOAN GROUP—APIA HARBOUR—ATTEMPT TO CAPTURE TAGI, A MURDERER—DETERMINATION OF THE CHIEFS AND PEOPLE TO PROTECT TAGI—TOWNS OF SALUAFATA, FUSI, AND SALELESE REDUCED TO ASHES IN CONSEQUENCE—EFFECTS OF THE EXAMPLE—TOWN OF MATAATU, ISLAND OF SAVAII—ELLICE'S GROUP OF ISLANDS—KINGSMILL GROUP OF ISLANDS—THE PEACOCK AND FLYING-FISH AT THE BAR OF THE COLUMBIA.

THE Peacock and Flying-Fish left Oahu on the 2nd December, 1840, and steered off to the southward until they reached the latitude of 5° N., and longitude 160° W., a position in which it was thought that an island existed. This position was carefully examined, until they were satisfied that there was no land at or near the locality. They then steered for Washington Island, known on the chart of Arrowsmith as New York Island, which was found and surveyed. Its position is in latitude $4^{\circ} 41' 35''$ N., and longitude $160^{\circ} 15' 37''$ W. It is three and a quarter miles long by one and a fourth wide, and is entirely covered with coconut and other trees, exhibiting a most luxuriant growth. There is a reef off its eastern point, which extends for half a mile. At the western end, a coral ledge extends two miles in a north-west-by-west direction, on which the water appears much discoloured, but the sea was not seen to break upon it, except close to the point of the island. The island is elevated about ten feet above the sea. The surf proved too heavy to allow of their landing, and the island affords no anchorage.

The positions in this neighbourhood, where five islands have been reported to exist, were diligently searched for eight days; but no land was seen, and Captain Hudson became satisfied that none but Washington Island is to be found.

On the 20th December, they made Jarvis's Island, in latitude $22^{\circ} 33'$ S., and longitude $159^{\circ} 54' 11''$ W. This is a small coral island, triangular in shape, a mile and three-fourths in length east and west, and a mile wide north and south. It exhibits the appearance of a white sand-beach, ten or twelve feet above the sea, without a tree or shrub, and but a few patches of grass. The sea breaks violently around its shores, but no reef extends to any distance from the island, which may be closely approached. A few sea-birds were seen about the island. No landing could be attempted, the surf being too heavy. Captain Hudson considers this a dangerous island for navigators.

The Peacock and Flying-Fish, for the next fifteen days, were engaged in searching for Brooks's Island, Clark's Reef, and various shoals; but without success, and, after examining the neighbouring sea, left the locality, fully satisfied that if any islands or shoals had existed, in or near the places assigned to them, they must have been seen.

On the 9th January, 1841, they made Enderbury's Island, of the Phoenix Group.

On the 11th, they made and surveyed Birnie's Island, which lies south-west from Enderbury's, in latitude $3^{\circ} 34' 15''$ S., longitude $171^{\circ} 33'$ W. It has an elevation of no more than six feet above the sea; is about one mile long and a quarter of a mile wide, trending about north-west and south-east. It is but a strip of coral, apparently uplifted, and is exceedingly dangerous for vessels, as it cannot be seen from a distance, and a vessel, in thick weather, would scarcely have time to avoid it after it was discovered.

A number of islands and reefs, reported to exist, were searched for in this neighbourhood, viz.: Mary Balcout's, Brothers', Robertson's, Phoenix, Harper's, and others, laid down, but not named, all of which are believed to have no existence whatever.

On the 17th January they made Hull's Island. Captain Hudson, believing this to be Sydney Island, ran off forty-five miles to the westward, for Hull's Island, but, of course, saw nothing of it, as it lies that distance to the eastward, in the same latitude.

The position of an island supposed to exist in latitude $5^{\circ} 23'$ S., and longitude $173^{\circ} 25'$ W., was passed, but no signs of land were seen. They then ran over the supposed place of Fletcher's Island, in latitude $7^{\circ} 2'$ S., longitude $173^{\circ} 22'$ W., without seeing any shoal, island, or reef.

The next day they proceeded to the Duke of York's Island, which they made on the 25th, in latitude $8^{\circ} 36'$ S., longitude $172^{\circ} 23' 52''$ W. This is a lagoon island, of coral formation: its length east and west is three miles, and its width two and a half miles, north and south. There is no passage into the lagoon; the sea breaks on the reef with violence; but at high water a boat may pass over without difficulty, if proper care is taken. The islets that have been formed on the reef are eight or ten feet above the water, and are covered with cocoa-nut and pandanus trees.

As they approached the island, three double canoes were seen coming towards the ship, but with great caution; the mizzen-topsail was backed to allow them to come up, which they did, singing and shouting, making many gestures, and waving pieces of matting. A white flag was waved in return, and various articles exhibited to induce them to come alongside, which they at last did; but no inducement could prevail on them to come on board.

The boats were now lowered, and a large party proceeded to land at the nearest point. The land-

ing was effected on the coral shelf with some difficulty, and they found the natives, who had come alongside, ready to receive them, with every sign of friendship. They had apparently recovered from their alarm, and met the officers before they reached the beach, greeting them by rubbing noses and throwing their arms around their necks. Their excitement seemed to be so great that it was difficult for them to continue still for a moment, distracted by the numerous novel things around them. Some of them, however, were exceedingly shy, and would not suffer themselves to be approached; others had greater confidence, but at the same time showed a respectful fear; while a few put their arms round the officers' necks, and exhibited a boldness devoid of dread of any kind.

Their village, to which our party went, was on the inner or lagoon side of the island, and contained about thirty houses, which were raised about a foot above the surrounding earth: they were of oblong shape, about fifteen feet high to the ridge-pole, sloping gradually, and of a convex form to within two or three feet of the ground; the roof was supported on high posts, whilst the lower part rested on short ones, three feet within the eaves, having a strong piece extending around, on which the rafters are tied; the gable-ends were overtopped by the roof, and seemed necessary to protect them from the weather. Below the eaves, the whole was open from the ground to the roof. The thatching, made of pandanus-leaves, was of great thickness, and put on loosely. The interior of the houses was very clean, but there was no furniture except a few gourds, and a reclining stool, cut from a solid block of wood, having two legs at one end, which inclined it at an angle of nearly forty-five degrees: to show the manner of lying in it, they imitated a careless and comfortable lounge, which they evidently considered a luxury. It was conjectured that they had removed their various household utensils to a secret place.

The most remarkable constructions of the islanders near the village, were three small quays, five or six feet wide, and two feet above the water, forming slips about ten feet wide: at the end of each of these was a small house, built of pandanus-leaves, partly on poles in the water. These appeared to be places for securing their canoes, and for the purpose of keeping their fishing implements. Three canoes were seen lying a short distance off in the lagoon, filled with the women and children. This was a precaution adopted to enable them to escape if it became necessary; yet they did not seem to apprehend any hostility. No kind of war implements was observed among them, and their bodies exhibited no marks of strife with each other.

This island was discovered by Byron, in 1765, who reported it as destitute of inhabitants. The natives gave the name of their island as Oatafu, and acknowledged themselves the subjects of a chief who lived on a neighbouring island, called Fakafo, pointing to a southerly direction. With this exception, they did not appear to possess the knowledge of any other islands but their own.

On the 26th, the vessels sailed for the Duke of Clarence Island, but owing to the unfavourable state of the weather, they did not reach it until the 28th, though only a few miles distant, when it was surveyed, and found to be seven and two-tenths miles long, in a north and south direction, and five

miles wide from east to west. It is of a triangular shape, with the apex to the north. It has a lagoon similar to that of the Duke of York's, with islets in it; the north-west side is a bare reef, or wash, on which the sea breaks heavily. After the survey was effected, Captain Hudson found it impossible to land to hold communication with the natives, but has no doubt of its being inhabited, as it was spoken of by the inhabitants of the Duke of York's Island as belonging to the same people, and was called by them Nukunono. No opening was perceived into the lagoon, and there were many cocoa-nut and other trees on the island.

On the 29th, at 2^h 30^m A.M., whilst Lieutenant Emmons was the deck, the night being very dark, and the weather clear, he heard the distant sound of surf; soon afterwards the wind changed, when land was discovered close to the vessel, bearing north-east. They made signal to the tender, and hove-to till daylight, when the largest island they had yet seen was within two miles of the ship.

This proved to be a new discovery, as it was not to be found on any chart. The island, which I have named Bowditch, agreeably to the wish of Captain Hudson, was of coral formation, and its shape is that of a triangle, with the apex to the south. From north to south it is eight miles long, and in width, from its west point, four miles. On its south-west and north points the land is of considerable elevation, and the more elevated parts are connected by an extensive coral reef, that is awash. On the east side the land is more continuous, and on three parts there are extensive groves of cocoa-nut trees and shrubbery. There is no entrance for a vessel to the lagoon, which, from the appearance of the water, has but little depth.

At daylight, eighteen canoes, with four or five persons in each, were seen off the end of the island, apparently on a fishing excursion: they disregarded the vessels altogether, and continued their occupation, without taking any notice of them, and as if unwilling to lose the opportunity of taking the fish. The fish seemed to be extremely numerous, if the actions of the birds were to be taken as an indication, for immense numbers of them were seen darting into and rising from the sea every moment.

As the natives refused to come near the ship, Captain Hudson ordered two boats to be sent to open a communication with them. They were taking fish after the manner of the Samoans, by trolling a line, it being fastened by a pole eight or ten feet long to the stern of the canoes, and elevated above the surface to a sufficient height to allow the fish-hook, which was made of shell or bone, to drag alone the surface of the water; as their canoes were propelled, the fish, attracted by the glistening of the hook, eagerly caught at it, and were taken.

The natives were at first very shy of the boats; but the Hawaiians who were in them soon induced them to approach, and enter into trade, and finally enticed them alongside the ships. On coming near, they began a song or chant, holding up their paddles and mats, and shouting "kafionu tamatau." They resembled the natives of Oatafu, or Duke of York's Island, wore the same kind of mats, eye-shades, and ornaments, and some were

tattooed after the same manner. They were all finely formed, and manly in appearance, with pleasing countenances that expressed good-nature.

They seemed eager enough for trade, and soon disposed of all they had to exchange; a few presents were also made them, but all inducements failed to entice them on board. They appeared very cheerful, laughing heartily at any thing that struck them as ridiculous.

Three boats, with several of the officers, landed on the south-west point of the island, whither four or five canoes accompanied them. The islet was found covered with cocoa-nut trees, but there were no houses upon it. They called it Fakaao, which was the same as the natives of Oatafu had designated as the island where their great chief lived.

Captain Hudson now determined to bear away for the situation of the island of the Gente Heremosas of Quiros.

The position of this island is in longitude $170^{\circ} 55' 15''$ W., and latitude $11^{\circ} 5' S.$; it is of coral formation, but has no lagoon; it is nearly round, and four miles and three-tenths in circumference; it may be classed with the high coral islands, and is elevated from fifteen to twenty-five feet above the level of the sea; it is well wooded with cocoanuts, pandanus, and other trees and shrubs. The sea breaks constantly on all parts, and no safe landing exists. Its situation differs from the position laid down for that of Quiros. Captain Hudson therefore called it Swain's Island, after the master of a whaler, who had informed him of its existence. When within a mile of the island, no bottom could be had with two hundred fathoms of line. This isolated spot gave no other evidence of its ever having been inhabited, except the groves of cocoa-nut trees.

After securing observations for its position, the vessels bore away for Upolu, with the westerly breeze, which had continued for the last eight days, and been almost constant. This will serve to show that there is no real difficulty in the population of Polynesia migrating from west to east during this season of the year, when the trade-winds are almost entirely interrupted.

Until the 4th of February they had bad weather, and heavy squalls, accompanied with thunder and lightning.

On the 5th of February, the mountains of Savaii were dimly visible, although they were between fifty and sixty miles off. On the 6th, they were off the island of Upolu, when Captain Hudson, to lose no time, despatched the tender, with two boats, to survey the south side of the island, while the launch, with the first cutter, was to be sent round its east end, in order to complete the work in the least possible time. In the afternoon, the Peacock anchored in Apia Harbour.

At Apia, among their old acquaintances, they encountered Pea, the ruling chief of the place, whose begging propensities still existed in all their force. His form was equally rotund, and his desire of being of service quite as great. Report spoke of him as having become very religious of late, but his covetousness had not diminished in consequence, at least in the opinion of our officers. He was generally full of business, among his friends and relatives, all of whom he considers more or less as his dependants. He was very anxious to be informed what had become of his relative, Tuvai, the

murderer, whom we had carried away from these islands on our former visit.

On the 21st, while at anchor, Captain Hudson hearing that the noted Sangapolutale, principal chief of the towns of Saluafata, Fusi, and Salelese, who had protected and refused to give up the murderer of Gideon Smith, was at one of the towns near by on a visit, determined, if possible, to surprise and take him prisoner, to be held until such time as the murderer were given up. For this purpose he visited the town before daylight of the 22nd, with a few officers and men, but without success.

Previous to this time, Captain Hudson had had intercourse with this chief through our consul, Mr. Williams; and had demanded of him the punishment or delivery of the murderer, Tagi. In the course of the communications, Sangapolutale acknowledged that the murderer ought to be punished or given up; said he once wanted to kill him himself; but being a petty chief, he was backed and protected by the chiefs and the people of the three towns before named, who were promised, in case of necessity, assistance from some of the neighbouring chiefs, as well as others on the opposite side of the island. He further said, that he was desirous of giving him up, a few months before, to the commander of the Porpoise. It was distinctly stated to Sangapolutale, that the murderer must be either punished or given up, in conformity to the regulations adopted in their fono, composed of all the principal chiefs in the island, and that if neither of these stipulations were complied with, Captain Hudson would be compelled to employ the force under him in burning the towns that concealed and protected the murderer, and set their own laws and us at defiance.

Three days were given him from the time of the interview, to comply with the demand. He promised to do what he could, but he was fearful of the result, as his people wanted to fight, and had been promised aid from many quarters.

On the third day, his messengers arrived at Apia, and brought word that the chiefs and people were determined that the murderer should not be given up or punished; that they defied the Papalangis and their power; and that, if Captain Hudson chose to come and take him, they would give him a fight. The messenger further stated, that they well knew he would be demanded according to their own regulations, but they would take care he should not be punished or given up, for they were prepared to resist any attempt that would be made. Many other insulting messages were received; among them, one from the murderer and his friends, that when "he could kill a few more white men, he would be given up."

Such were their threats and boasting; their conduct was conformable to them, as represented by our consul, the missionaries, and Mr. Cunningham, H. B. M. vice-consul. Captain Hudson now saw the necessity of taking some steps that would check this criminal and audacious spirit, and prove to the natives that we had the power to punish these aggressions on our citizens.

On the 24th, the Peacock anchored in the harbour of Saluafata. Preparations were therefore made for swinging the broadside to the town, and the necessary arrangements for landing completed. Captain Hudson, however, still thought it proper to

wait a few hours, in the hope of receiving some communication from the natives, and that they would at the last moment agree to give up or punish the murderer. But no overtures whatever being made, at nine o'clock the boats were manned, and lay on their oars, ready for the signal to proceed. A fire was now opened from the ship, the balls being elevated so as to pass over the town; after which the boats pushed for the shore, the party landed, and the town of Saluafata, which consisted of about seventy-five houses, was reduced to ashes. The towns of Fusi and Salese, of some fifty more, shared the same fate. The party then returned to the ship, without any accident to themselves or the natives, having met with no opposition whatever, notwithstanding the great boastings and bravado messages which had been sent by the chiefs and inhabitants.

This act was performed with great reluctance, and not until the most perfect conviction of its being absolutely necessary to secure the safety of the crews of such of our whaling fleet as touch at this island, as well as to restore the respect due to our flag and those who sail under it, and to correct the erroneous opinion, that our forbearance was the result of fear of their prowess and numbers. In their transactions, and outrages committed on strangers, they had exhibited a fearlessness and spirit of daring that it was time to put a stop to. By this attack upon them, they became fully sensible that they were not our equals in war, nor capable of resisting attacks that might be made on them; they have in consequence become much more humble, so that the general opinion throughout the islands is, that hereafter they must conform to the regulations they made on our former visit, and maintain them with strict integrity towards foreigners.

Since this transaction, I have received letters from the island of Upolu, which inform me that this well-deserved punishment has had a most happy effect, and has put a termination to evils that had formerly been of common occurrence.

They now left Saluafata, and on the evening of the 5th, anchored in the roadstead of Mataatu, island of Savaii.

The town of Mataatu is beautifully situated on a bay, which is no more than a mere indentation of the coast. It is surrounded by extensive cocoa-nut groves, behind which the houses are built, in number about four hundred. The town contains about two thousand inhabitants, most of whom are still heathens.

On the 6th of March, they sailed from the roadstead of Mataatu, for the islands known on the chart of Arrowsmith as Ellice's Group.

At noon, on the 14th, they made land, and by 2 P.M., they were close to what proved to be an extensive ring of small islets, situated on a coral reef surrounding a lagoon. These are so far separated as to give the idea of distinct islands, which has probably led to their having the name of "group." These islets are well covered with cocoa-nut and other trees, which give them a sufficient elevation to be seen at ten or twelve miles distance. The reef which links these islets is awash, over which the sea breaks with violence. There are two openings in its west side, and an island off its south-west point, at the distance of a mile, five miles in length by two in width. The

island is thirteen miles long, in a north-by-east and south-by-west direction, and seven miles and twentieths east and west.

When the vessels had approached within a short distance of the largest island, two canoes were seen coming towards the ship, only one of which came near. In it were five men; and from the familiar manner in which they came alongside, it was evident they had had frequent communication with vessels. They refused to come on board, but exhibited various articles of traffic.

They had no other weapons but spears and knives, and seemed to be equipped for a fishing party, from the implements they had with them. Some rolls of sennit were bought, and large wooden shark-hooks. Their spears were only poles of coconut wood, pointed at one end; and their knives made of small sharks' teeth, inserted into a stick with gum and fine sennit, and are about a foot long.

It was soon found that they understood the Samoan language, and spoke a purely Polynesian dialect. The Samoan native easily conversed with them. They gave the name of the island as Fanafute. They seemed perfectly familiar with white men, and when the guns were fired for a base by sound, they showed no kind of alarm.

The island was surveyed, and was found to be in latitude $8^{\circ} 30' 45''$ S., longitude $179^{\circ} 13' 30''$ E. There appears to be good anchorage within the lagoon; an abundance of wood is to be had, but it is believed there is no adequate supply of fresh water.

From what was ascertained, the population was put down at two hundred and fifty souls.

The vessels left Ellice's Group the same evening, proceeded under easy sail, and at daylight made the Depeyster Islands, distant three and a half miles to the north-west.

They surveyed this island; and on the same day Tracy's Island, whose native name is Oaitupu, was in sight to the eastward. The observations placed it in latitude $7^{\circ} 28'$ S., and longitude $178^{\circ} 43' 35''$ E. It is well covered with trees, and to all appearance as extensive as Depeyster Island.

Depeyster Island is called by the natives Nukufetau; they are acquainted with Fanafute, or Ellice's Island, and also with Oaitupu, or Tracy's Island. On being asked if these were all the islands they knew of, they said, pointing to the east, that beyond Oaitupu there were three islands, called Oatafu, Nukunono, and Fakafo, which it will be recollected are those of the Union Group. Mr. Hale pressed the inquiry, if this were all; and with some hesitation they added the name of Oloosinga, which is one of the small eastern islands of the Samoan Group; but what seemed strange, they did not understand the name of Samoa. On mentioning Tonga and Haabai, the names appeared to be recognised.

The vessels left Nukufetau the same evening, and steered away to the northward. In latitude $6^{\circ} 10'$ S., and longitude $177^{\circ} 41'$ E., they passed a small island which has no lagoon, and does not appear to be named on any of the charts. This they saw at some distance, and although it appears to have been seen before, yet as the charts only designate it as an island, I have bestowed upon it the name of Spelden, after the purser of the Peacock, one of the most valuable officers of the expedition.

On the 24th they fell in with another island, in latitude $6^{\circ} 19' S.$, longitude $176^{\circ} 23' 15'' E.$ This discovery I have called Hudson, after Captain Hudson. It was surveyed and found to be but one mile and four-tenths long, north and south, and nine-tenths of a mile wide, east and west. This island is inhabited, a few natives being seen on the beach, and several houses under cocoa-nut trees on its west side. It is of coral formation, has no lagoon, and can be seen about eight or ten miles.

On the 25th they passed the small island of St. Augustine, whose position as ascertained was in latitude $5^{\circ} 35' S.$, and longitude $176^{\circ} 6' E.$ It appeared well wooded.

Until the 3rd of April, they continued to sail to the northward, without meeting with any islands. On that day they made Drummond's Island of the charts, one of the Kingsmill Group, where they encountered the regular north-east trades. This island is called Taputeouea by the natives; it is situated in latitude $1^{\circ} 20' S.$, and longitude $174^{\circ} 57' E.$ It is of coral formation, is thirty miles long in a north-west and south-east direction, and varies in width from a half to three-quarters of a mile. This, however, only includes the high portions, or that which is above the ocean level a few feet. It is thinly covered with cocoa-nut and pandanus-trees, and not a patch of grass is to be seen, or any sort of shrubbery or undergrowth. To the leeward, or on its west side, the reefs and sandbanks extend off some distance, gradually increasing from the north-west point to the south-east, where they are as much as six and a half miles in width. This reef is interrupted in places, and there is good anchorage off the town of Utiroa, towards the north-west end, near a small sandbank, which is usually bare.

The natives did all in their power to pilfer from the party that landed; if their attention were diverted for a moment, the hands of a native were felt at their pockets. When detected, they would hold up their hands, with open palms, and laugh. This boldness was more especially confined to a few, and one in particular, a young chief, who was a tall, good-looking person, with a vain and impudent expression of countenance. It is impossible to give a correct idea of the annoyances that our gentlemen were subjected to from the rudeness of some, the excess of civility of others, and the constant watchfulness that became necessary to avoid the pickpockets. An old man was about smearing himself in cocoa-nut oil, with a cup full of salve, in which he would dip his fingers, and endeavour to rub them in their faces. This afforded much amusement to the party, while the natives seemed astonished that the attempt was repulsed; for there was little doubt of its being intended as a great compliment thus to anoint their guests.

On the afternoon of the 7th, a large party visited the town of Utiroa, equally well armed as the day before, and with fresh instructions and cautions that no one should give cause of offence, and if any thing was offered for sale, to pay liberally for it. These precautions were enjoined, in consequence of the belief that the natives were a treacherous and dangerous set of fellows. An opportunity had been taken, before a large number, to show them that the cuirass, &c., was not proof against our weapons at any distance; for which purpose one

of the coats of mail was hoisted up at the yard-arm, and fired at: the holes were then exhibited, but did not seem to produce much effect upon them. They manifested a decided disposition for warlike pursuits, and ferocity was the most predominant trait in their character.

After they had been an hour and a half on shore, Captain Hudson ordered all the officers and boats' crews down to the beach, fearing a collision, and being satisfied that it was quite time to depart. As they were assembling for the purpose of embarking, a noise was heard, resembling a sudden assault, from some of the houses near by, and on mustering the men, John Anderson, a seaman, was missing. Lieutenant Walker and Passed-Midshipman Davis were sent, each with a few men, in the direction whence the report proceeded, but they saw nothing of him, and all was quiet at the enclosure. The natives began now to assemble in large numbers, armed, and things looked somewhat serious; for, as Passed-Midshipman Davis returned to the beach, he was stoned, and one of the men received a severe blow. This was however borne without return. On inquiry, it was found that Anderson had been met but a few moments before the party was mustered. He was armed with a musket, pistol, and cutlass, and was esteemed one of the most correct and prudent men in the ship. The boats were now shoved off a short distance from the beach, and beyond the reach of the native arms, when several muskets were fired to notify him, and his name repeatedly called, which could have been heard in any part of the village; but no Anderson appeared. Captain Hudson finally came to the conclusion that he had either been enticed away by the women, or that the natives had detained him, in the hopes of receiving a ransom for his release, and that he would either return in one of the canoes to the ship, or be given up on a reward being offered. Under these impressions, he ordered the boats to return to the ship.

The next day passed without any intelligence of poor Anderson, and Captain Hudson made up his mind that Anderson had been treacherously murdered. He therefore believed it to be a paramount duty to punish them, not only for this perfidious act, but to secure their good conduct hereafter, in case of other vessels touching at this island.

In consequence of this determination, the boats were prepared for landing, and Mr. Knox was ordered to anchor the tender in a position near the shore opposite the town, in order to protect them.

The expedition consisted of seven boats; in them were embarked about eighty officers and men. About nine o'clock they approached the town of Utiroa. The first object that attracted attention was a column of smoke arising from the small building that stood on piles in front of the town before spoken of. On arriving near the beach, the three divisions formed in a line abreast, according to the directions. Lieutenant Walker, with Mr. Hale, (who acted as interpreter,) now showed the white flag, and pulled in toward the beach in front, in order to hold a parley, make further inquiries relative to Anderson, and endeavour to have him given up, if alive. There were about five hundred natives, well armed, on the beach, and others were constantly coming in from all sides: they shouted and shook their weapons with threat-

ening gestures. Many of them, however, seemed undecided how to act; and their whole appearance, though formidable enough, was yet quite ludicrous in the eyes of the men, equipped as the savages were in their cumbrous coats of mail and fish-skin helmets.

As the boat approached, several of the natives advanced towards it, preceded by a chief fully equipped in armour, and holding a spear in his right hand. Mr. Hale then explained the object they had in view, and showed the large quantity of tobacco which they had brought for a ransom. The chief appeared to understand, and pointed to the shore, making signs at the same time for them to come in. The savages who attended the chief had now increased in numbers, and were close to the boat, while the whole body was advancing slowly forwards. Finding that it was not only useless but dangerous to continue the parley, the boat was pulled back into line.

Having thus failed to procure the desired end, the most humane manner of effecting their punishment was conceived to be at once to show them the power of our arms, and sacrifice some of the most prominent among the savages. Lieutenant Walker, therefore, requested Mr. Peale, the best shot of the party, to give them a proof of it, and thus prevent the further effusion of blood. This was accordingly done by singling out one of the foremost, and a rocket was also discharged, which took its flight towards the great body of them. The latter missile caused great confusion, and many of them turned to seek the shore, but their terror did not last long, and they made another stand, brandishing their spears and weapons as if bent upon a trial of strength with their opponents; the falling of their chiefs was disregarded, and few seemed to consider the effects produced, except those who were wounded. A general volley soon followed, which caused them all to retreat, some in great haste, while others moved more slowly towards the shore, seeming to be but little impressed as to the character of our arms. The wounded and dead were all carried off. The boats now pushed in for the beach, and by the time they had reached it, there was not a native of the whole host to be seen.

The three divisions then landed, and the first and second proceeded to fire the mariapa and town, while the third remained to guard the boats. The whole was soon in a blaze, and but a short time sufficed to reduce it to ashes. The natives were still to be seen in small parties, out of reach of the guns, among the cocoa-nut groves. After the work of destruction had been effected, the divisions again returned to the boats. The place now exhibited a very different picture from that it had presented only a short hour before. The blackened sites were all that remained of the former dwellings, the council-house was entirely in ashes, the fences were torn down, and the cocoa-nut trees leafless.

The tide having fallen, three bodies were found, one of whom was the young chief who had been so troublesome and insolent to our gentlemen, and who it was believed had been active in the murder of poor Anderson.

While the party were getting ready to embark, a small party of natives were seen coming towards them from Eta; these were all unarmed, and had cocoa-nut leaves and mats tied round their necks: they had come to assure our party of their good-

will, and their joy at the destruction of Utiroa. One old man in particular repeated frequently his assurances, with much laughter and many grimaces. No sooner had they ascertained that the intentions towards them were not hostile, than they began to pillage the burning town.

The number of houses destroyed was supposed to be about three hundred, besides upwards of a dozen large canoes. The loss of life was twelve on the part of the natives: there was no one injured on our side.

From the fact that the natives had left every thing in their dwellings, it was clear that they did not anticipate the fate that was to befall them; that they were in hopes of being able to cut off our boats, and perhaps flattered themselves with the prospect of an indiscriminate plunder. This would be in perfect accordance with their customs and constant practice of attempting to cut off all vessels or boats that may visit their islands. Although I have no reason to come to this conclusion from our own knowledge respecting this island, yet from all the accounts of those who have resided some time among like savages, their first idea is always to capture or possess themselves of the vessel or any of the boats. We have seen that this is put in practice among the Feejees and others, who regard all vessels wrecked as sent to them as a gift from the gods.

The character of these islanders is the most savage of any that we met with; their ferocity led to the belief that they were cannibals, although no positive proofs were seen of it. They are under no control whatever, and possess little of the characteristic hospitality usually found in savage nations. It was observed also that their treatment of each other exhibited a great want of feeling, and in many instances, passions and propensities indicative of the lowest state of barbarism. Their young girls were offered to be disposed of, by their fathers and brothers, alongside the ship, openly, and without concealment; and to drive a bargain for them, was one of the principal objects of their visits to the ship.

It is to be hoped that the punishment inflicted on Utiroa for the murder of Anderson will be long remembered, and prove a salutary lesson to the numerous and thickly-peopled towns of Taputeonea, or Drummond's Island.

On the same evening, (the 9th,) they weighed anchor, and on the next day made Bishop's or Sydenham Island, which they surveyed the following day.

Off the north point of Bishop's Island, there is a shoal extending one and a half mile to the northward and westward, the water on which is discoloured, and where the Peacock found nine fathoms. The native name for Bishop's or Sydenham Island, is Nanouti; it lies in latitude 36' S., and longitude 175° 24' E.; it is of coral formation, and a mere ledge of land, like Drummond's Island, with a lagoon, reef, and bank, on its lee or south-west side. The survey made it nineteen miles long, trending north-west and south-east, and its width, including lagoon and reef, eight and a half miles. On the south-west and north-west portions of it, there is a coral bank, from one to one and a half mile beyond the reef, on which there is ten fathoms water. At the distance of four miles from the north-west end of the island, they found soundings in two hundred and sixty-five fathoms.

At daylight on the 11th, they made Henderville Island, called by the natives Nanouki.

Henderville Island was determined to be in latitude 11° N., and longitude $173^{\circ} 39' 20''$ E. This island is six and a half miles long, east and west, and five and a half miles wide at the east end, diminishing to two miles at the west end: it is of coral formation. There are two towns on the west end, and several on the east and south-east parts, and it is thickly inhabited. The natives who came on board said that the two ends of the island were at war with each other. They are very much the same in appearance as the natives of Drummond's Island; were naked, and spoke the same dialect. These natives knew of the islands in their immediate vicinity, as well as the direction of Taputeouea, or Drummond's Island, and gave them the name of being inhabited by a savage and hostile people.

Hall's Island, called by the natives Maiana, is of coral formation; the north-east and south-east parts are continuous land, whilst to the south-west and north-west it consists of a reef and bank, in some places awash, with a sand-pit in its lagoon. The western sides of the island are therefore very dangerous, and should be approached with caution, as the sea seldom breaks on them, and the discoloration of the water is not at all times to be observed. The survey makes this island nine miles long, in a north-east and south-west direction, and six miles in width, in a south-east and north-west direction: it is situated in latitude $56' 45''$ N., and longitude $173^{\circ} 4' 15''$ E. On its west side, on some of the banks, there is anchorage in from ten to fifteen fathoms of water.

On the morning of the 15th, they made the island of Apamama, the Hopper Island of Duperrey, and the Simpson's Island of the charts of Arrowsmith. It is about five feet above the surface of the ocean; is ten miles long, north-west and south-east, and five miles in width, north and south. The land is continuous on the north and east sides, excepting two small strips of bare reef. There is anchorage on the west side in an opening between the reef and the north-west point of the island, which is about two miles wide. The soundings vary from two to five fathoms: across it, in some places, the bottom is broken coral; in others, it is coral sand. The entrance to the lagoon, although feasible, should not be attempted through this passage; but there is a good passage into it on the south-east side of the island, which is a mile wide. A small quantity of fresh water may be had by digging on the beaches: wood and refreshments are not procurable for shipping. This island is situated in latitude $27^{\circ} 21''$ N., and longitude $173^{\circ} 57' 30''$ E.: it has heretofore been represented as two islands on the charts, called on one Simpson's, and the other Hopper and Harbottle; but there is only one, joined by the same reef.

On the 16th, while engaged in the survey of Kuria or Woodle's Island, some canoes came off to the ship, when the natives came on board without hesitation,—an evidence of their having had communication with ships, and their confidence of good treatment. It was soon reported, that a white man was coming off; and, as in all such cases, he was looked for and watched with great interest, and various surmises were made relative to his origin and history. They were not long left in

doubt, for before he reached the deck, his voice bespoke him an Irishman. He was dressed in a pair of duck trousers and red flannel shirt, and announced himself as "John Kirby, a deserter from the English whale-ship Admiral Cockburn." He said he had been on the island for three years; that he was living with the daughter of the principal chief; and solicited a passage to some civilized place.

The principal chief of the island, with his daughter, whom Kirby had for a wife, came on board with him. They both seemed deeply affected, when they learned that he had received permission to remain on board, and was about to leave them; and both endeavoured to dissuade him from going.

His wife showed much concern, and wished to accompany him: the old chief, her father, endeavoured to persuade him to take her. Finding she could not prevail, she requested as a parting gift, an old jack-knife, the only property he had left to give. Several presents were made to her by the officers and men, which reconciled her somewhat to her lot. The natives all left the ship much gratified, excepting Kirby's wife, who continued to be somewhat downhearted.

Kirby proved an intelligent man: he understood the language, and was well acquainted with the character, manners, and customs of the islanders, among whom he had lived from the 11th of February, 1838, to the 15th of April, 1841. His presence in the ship afforded Captain Hudson an opportunity, not only of communicating with the natives more freely, but of obtaining much interesting information relative to this group.

Kuria or Woodle's Island has four towns on it, which Kirby estimates to contain between four and five thousand inhabitants. Its geographical position is in latitude $14^{\circ} 30'$ N., longitude $173^{\circ} 27'$ E.: its greatest length is five miles, north-west and south-east, and its greatest width, which is at the south-east end, is two and a half miles. The remainder is very narrow, and almost divided towards the centre. The north-west portion has two small lagoons, two or three hundred yards from the beach; the water in them is not so salt as the ocean. In one of them, the bottom consists of red mud on one side, while it is a white clay on the other. They are used as fish-ponds by the chiefs. There is a reef extending to the north-west nearly three miles.

Kirby states, that on the first night of his landing, they stripped him of every thing but an old pair of trousers, after which he was conducted to a great conclave of natives, assembled around a large fire, which he then believed was intended to roast him. He had fortunately gone on shore in the highest chief's canoe, and placed himself under his protection, as well as he knew how. After some considerable talk, instead of being roasted, he was furnished with a wife, and taken to reside with his friend, the principal chief, who, with the rest of the natives, ever after treated him kindly. After a few months' residence in the family of the chief, he gave his own daughter to Kirby for a wife. The result of this was much jealousy and envy between his first wife, of common origin, and his last, of high rank, until the former was ousted and sent back to her parents, leaving the chief's daughter in quiet possession of the house.

During Kirby's residence on the island, several English, and one American whaler, had been off the island, on which occasions he had been employed as pilot and interpreter. The natives were constantly asking him, after their departure, why he "did not fool the vessels and run them on shore, that they might plunder them." One of the above vessels left two pigs, two goats, and a pair of Muscovy ducks; but no sooner had the vessel left, than they killed them all, for some superstitious fears, and threw them into the sea, notwithstanding all Kirby's remonstrances and entreaties to have them spared, and allow him to eat them.

Kirby says that the natives, though not professed cannibals, sometimes eat human flesh; but their food is generally fish. They do not eat fowls, and will not raise pigs, on account of their filth. Their treacle is extracted from the spathes of the cocoa-nut trees, an operation which, if frequently repeated, destroys the tree. They are very fond of cock-fighting.

The conduct of foreigners who visit these islands is sometimes of a most outrageous character. Some four or five months before the Peacock's visit, Kirby states that one Leasonby, master of the whale-ship *Offley*, of London, and whose mate was an American, named Lake, landed six young girls on this island, whom he had obtained at Peru, or Francis Island. After having kept them on board several days, he brought them here to save himself the trouble of beating his vessel up to the island to which they belonged.

These young girls were extremely good-looking, and are now slaves to the chief of this island, and made to labour and satisfy his lusts. They were landed on Kuria, in despite of their entreaties and tears. These people are in the habit of killing all strangers from islands not connected with their immediate group; but the lives of these girls were spared, and they were retained in bondage. Two of them were brought off to the ship, who entreated most earnestly to be kept on board, and to be carried to their home.

The published charts of these islands were found so inaccurate, as to be a cause of danger rather than of safety; for in them the islands are multiplied, and every hummock or detached islet on the same reef is represented as separate, and a name assigned it. Thus a confusion exists, that it is almost impossible to unravel. How so many errors could be committed, can only be accounted for by the fact that those who had the publication of the charts formerly were generally ignorant, and did not take that care to sift and examine the information that was essential to accuracy.

Several islands are laid down here on the different charts, but those only really exist which are named Tarawa, or Knox Island; Apia, or Charlotte Island; and Maraki, or Matthew's Island.

Tarawa, or Knox Island, is in length twenty miles, trending north-west and south-east, and lies in latitude $1^{\circ} 29' N.$, and longitude $173^{\circ} 5' E.$ The land is continuous and wooded, with the exception of four gaps, where the reef is bare. The south side is twelve miles long, and trends nearly east and west. On this part, near the western end, are three hummocks (which appear like islands in the distance), and several small sand-banks, which are connected by the same reef. This island has its lagoon, but it has the appearance of an extensive

bay, in consequence of the reef on the west side being a sunken one, on which is found five fathoms of water.

Apia, or Charlotte Island, consists of strings of coral islets, situated within a reef, which is six and seven feet above the water. The reef has a bluff front, and is much worn by the sea. There is no coral sand. Apia was found to be in latitude $1^{\circ} 52' N.$, and $173^{\circ} 2' E.$ It is a lagoon island. Its length in the direction of north-east and south-west is sixteen miles, and its average breadth five. On the east side of the island the land is covered with cocoa-nut and pandanus groves, with some undergrowth. The north-west and west side is a continuous reef, four or five feet above the water's edge, on which are many islets. About the centre of the reef, on the south-west side, is a ship's channel into the lagoon, which is half a mile wide. Near its entrance is a small islet, which stands alone, and is a good mark for the entrance. There is no island in the lagoon, as shown on the French charts of Duperrey.

It was ascertained that their knowledge of other islands only extended to Tarawa, or Knox's Island, and two others. To one of these they pointed in a direction west of north, and called it Maraki,—Matthew's Island; and the other Taritari and Makin, which they said were two days' sail, and which was believed to be Pitt's Island.

The next island that claimed their attention was Maraki, or Matthew's Island. It is much smaller than the two last, and situated in latitude $2^{\circ} N.$, and longitude $173^{\circ} 25' 30'' E.$ It is a lagoon island, without entrances, and of coral formation. It is but five miles long, north-by-east and south-by-west, and two and a half wide at its base, being of triangular shape. It appears to be densely peopled.

On the 27th, the Peacock left Matthew's Island to look for Pitt's Island, which they made on the 28th, at 9 A.M. There are two islands known under this name: the largest is called by the natives Taritari, and the smallest, Makin. The latitude of the southern point of Taritari is $3^{\circ} 8' N.$, longitude $172^{\circ} 48' E.$ This island is of the figure of a triangle, with its apex to the south, and its sides are about fourteen miles in length. The south-east side is a continuous grove of cocoa-nut and pandanus, with some undergrowth; on the other two sides is a reef, which is awash, excepting the north-west point, in which there is a small inlet.

Makin is of much smaller dimensions, being but six miles long: it varies in width from half a mile to a mile. Its northern point lies in latitude $3^{\circ} 20' 43'' N.$, and longitude $172^{\circ} 57' E.$ This small island is the seat of government, and the natives now unite both names under the one of Makin.

It was soon evident that the island was thickly inhabited; for when the ship reached the lee side, in the afternoon, about twenty canoes came off, containing from five to ten natives in each, and in one of them was a white man, who was clothed in mats. The ship was immediately hove-to to take him on board, and he gave his name as Robert Wood (alias Grey), a Scotchman by birth, who was left by his own wish on the island, seven years before, by the English whaling brig *Janie*, of London, sailing from Sydney. He was under so great excitement as to render his utterance quite unintelligible at times, and some amusing scenes

took place in consequence. On his reaching the deck, he first inquired if he would be permitted to go on shore again; and then, who was king of England; if there was peace with America; for he had thought there must be a war. He had seen no white men since he landed, and said that he had become old and grayheaded. To prove the latter assertion he pulled off his apology for a hat, and displayed a most luxuriant growth of jet-black hair.

He had not been on board long before he asked for a passage to some civilized land; and when he was informed that his wishes would be gratified, he seemed for a time beside himself from excess of joy. His feelings were evinced in his endeavours to interpret the questions to the natives; he almost invariably repeated to them what was said to him in English, in the same language; and gave back their answers or expressions in the island dialect. This had a droll effect, and he had frequently to be reminded that he was an interpreter.

Wood says, that the natives had always treated him kindly; and for the first few months after his arrival among them, they carried him about on their shoulders (he was the first white man that many of them had ever seen), and almost deified him. They have no wars, and very few arms, and seldom quarrel, except about their women. The punishment of death is inflicted on those who infringe the seraglio of the chiefs.

When the vessels had made sail, in order to leave the island, and it was supposed that all the natives had left the ship, one was found hanging to the man-ropes near the water. Wood, on questioning the native, found that he was a petty chief, who wished to accompany the ship, and had taken this means of doing it, hoping not to be perceived until he was out of sight of his island. He said he was too poor a chief to have any wives, and therefore wished to leave his island, and be landed on some other, where he could obtain some. Captain Hudson had a boat lowered at once, by which he was put on board a canoe, that took him to the shore.

The Kingsmill Group consists of fifteen islands, of which the geographical positions have been already given in speaking of them separately.

They are as follow, viz.:

NATIVE NAMES.	NAME ON CHARTS.
Maraki	Matthew's Island.
Makin and Taritari	Pitt's "
Apia	Charlotte's "
Tarawa	Knox's "
Maiana	Hall's "

NATIVE NAMES.	NAME ON CHARTS.
Apamama	Hopper's Island.
Kuria	Woodle's "
Nanouki	Henderville's "
Nanouti	Sydenham "
Taputeuea	Drummond's "

The above are all those that were visited by the Peacock: the natives, however, gave the names of others, which are said to be in the neighbourhood, to the number of six.

Peru	Francis Island.
Nukunau	Byron's "
Arurai	Hurd's "
Tamana	Phœbe "
Onoutu	Rotcher's "

The first of these five are known on the maps, but the two last are not. There is one which the natives of Apia designated by Tarawani-Makin, but I am inclined to believe it was intended for Pitt's Island.

The population of the group, from the best data which was obtained, is about sixty thousand souls. At Drummond's Island, where there was the best opportunity of a personal examination, the estimates were above ten thousand: this is considered the most populous island of the whole group. On Apamama, Kirby saw collected from six to seven thousand warriors, belonging to it, Nanouki, and Kuria: the joint population of these three islands may therefore be reckoned at twenty-eight thousand; it would seem reasonable to estimate the remaining twelve islands, which have been observed to be thickly inhabited, at the same number.

On completing the survey of the Kingsmill Group, Captain Hudson found it necessary to place his crew, and that of the tender, upon a reduced allowance of provisions and water. He then steered away to the northward, through the Mulgrave Islands; and on the morning of the 3rd of May, they made Pedder Island of Arrowsmith. The vessels passed along its west side, and through the Fordyce Passage, between it and Arrowsmith's Island. Daniel Island was also seen from aloft to the eastward. These islands are all of coral formation, with lagoons, and are inhabited. The south-east end of Arrowsmith's Island was found to be in latitude $7^{\circ} 5' N$, longitude $171^{\circ} 23' 54'' E$. It is twenty miles long.

On the 17th of July, the Peacock and Flying-Fish arrived at the bar of the Columbia River. I have already detailed of the former vessel.

CHAPTER XXXIV.

CALIFORNIA.

THE VINCENNES ARRIVES AT SAN FRANCISCO—YERBA BUENA—GENERAL APPEARANCE OF CALIFORNIA—CLIMATE—VALLEY OF THE SACRAMENTO—THE SIERRA—THE SAN JOACHIM—HARBOUR OF SAN FRANCISCO—IMPORTS AND EXPORTS—THE GRAPE IN CALIFORNIA—SALMON FISHERY—WATER MILLS—SHEEP AND HOGS—EXCURSION INTO THE INTERIOR—CAPTAIN SUTER'S SETTLEMENT—NEW HELVETIA—ROUTE TO THE UNITED STATES—MOUTH OF THE FEATHER RIVER—ELK HERDS—SURVEY OF THE SACRAMENTO—RETURN OF THE PARTY—COUNTRY ROUND THE BAY OF SAN PABLO—CITY OF ZONOMA—GENERAL VALLEJO.

THE Vincennes arrived at San Francisco on the 14th of August, 1841, and anchored off Yerba Buena. As soon as the ship anchored, an officer was despatched on shore to call upon the authorities; but none of any description were to be found. The only magistrate, an alcalde, was absent. The frequency of revolutions in this country had caused a great change since the visit of Captain Beechey.

On the 17th, after consultation with the captain of the port, a Mr. Richardson, the ship was moved to the north shore, at Sansalito, or Whaler's Harbour. Water, which it was impossible to obtain at Yerba Buena, on account of the drought that had prevailed for several months, is here to be had from a small spring. After the ship was moored, the boats were hoisted out, and fitted for surveying duties up the river Sacramento.

On approaching the coast in the neighbourhood of San Francisco, the country has by no means an inviting aspect. To the north, it rises in a lofty range, whose highest point is known as the Table Hill, and forms an iron-bound coast from Punto de los Reyes to the mouth of the harbour.

To the south, there is an extended sandy beach, behind which rise the sand-hills of San Bruno, to a moderate height. There are no symptoms of cultivation, nor is the land on either side fit for it; for in the former direction it is mountainous, in the latter sandy, and in both barren. The entrance to the harbour is striking: bold and rocky shores confine the rush of the tide, which bore us on and through a narrow passage into a large estuary: in this, several islands and rocks lie scattered around: some of the islands are clothed with vegetation to their very tops; others are barren and covered with guano, having an immense number of sea-fowls hovering over, around, and alighting upon them. The distant shores of the bay extend north and south far beyond the visible horizon, exhibiting one of the most spacious, and at the same time safest ports in the world. To the east rises a lofty inland range, known by the name of La Sierra, brilliant with all the beautiful tints that the atmosphere in this climate produces.

Yerba Buena is the usual though by no means the best anchorage. The town, as is stated, is not calculated to produce a favourable impression on a stranger. Its buildings may be counted, and consists of a large frame building, occupied by the agent of the Hudson Bay Company, a store, kept by Mr. Spears, an American, a billiard-room and

bar, a poop cabin of a ship, occupied as a dwelling by Captain Hinckley, a blacksmith's shop, and some out buildings. These, though few in number, are also far between. With these, I must not forget to enumerate an old dilapidated adobe building, which has a conspicuous position on the top of the hill overlooking the anchorage. When to this we add a sterile soil and hills of bare rock, it will be seen that Yerba Buena and the country around it are any thing but beautiful. This description holds good when the tide is high, but at low water it has for a foreground an extensive mud-flat, which does not add to the beauty of the view.

After passing through the entrance, we were scarcely able to distinguish the presidio; and had it not been for its solitary flag-staff, we could not have ascertained its situation. From this staff no flag floated; the building was deserted, the walls had fallen to decay, the guns were dismounted, and every thing around it lay in quiet. We were not even saluted by the stentorian lungs of some soldier, so customary in Spanish places, even after all political power as well as military and civil rule has fled. I afterwards learned that the presidio was still a garrison in name, and that it had not been wholly abandoned; but the remnant of the troops stationed there consisted of no more than an officer and one soldier. At Yerba Buena there was a similar absence of all authority.

At the time of our visit, the country altogether presented rather a singular appearance. Instead of a lively green hue, it had generally a tint of a light straw-colour, showing an extreme want of moisture. The drought had continued for eleven months; the cattle were dying in the fields; and the first view of California was not calculated to make a favourable impression either of its beauty or fertility.

There is, perhaps, no other country where there is such a diversity of features, soil, and climate, as California. The surface exhibits the varieties of lofty ranges of mountains, confined valleys, and extensive plains. On the coast, a range of high land extends in length from Cape Mendocino to latitude 32° N., and in breadth into the interior from ten to twenty miles.

The valley of San Juan, of no great extent, lies between these hills and the Sierra, which is a low range of mountains. East of the Sierra is the broad valley of the Sacramento, which is prolonged to the south in that of Buena Ventura, as far as Mount San Bernardino, under the thirty-fourth parallel. Beyond this valley is the Californian

Range, which is a continuation of the Cascade Range of Oregon, and whose southern summits are capped with snow. This range gradually decreases in height, until it declines into hills of moderate elevation. To the east of the Californian Mountains are the vast sandy plains, of which we know but little, except that they form a wide tractless waste, destitute of every thing that can fit it for the habitation of man or beast.

The soil is as variable as the face of the country. On the coast range of hills there is little to invite the agriculturist, except in some vales of no great extent. These hills are, however, admirably adapted for raising herds and flocks, and are at present the feeding grounds of numerous deer, elk, &c., to which the short sweet grass and wild oats that are spread over them, afford a plentiful supply of food. No attempts have been made to cultivate the northern part of this section, nor is it susceptible of being the seat of any large agricultural operations.

The valley of the Sacramento, and that of San Juan, are the most fruitful parts of California, particularly the latter, which is capable of producing wheat, Indian corn, rye, oats, &c., with all the fruits of the temperate and many of the tropical climates. It likewise offers fine pasture-grounds for cattle. This region comprises a level plain, from fifteen to twenty miles in width, extending from the bay of San Francisco, beyond the mission of that name, north and south. This may be termed the garden of California; but although several small streams and lakes serve to water it, yet in dry seasons or droughts, not only the crops but the herbage also suffers extremely, and the cattle are deprived of food.

The Sierra affords little scope for cultivation, being much broken, barren, and sandy. It is in places covered with cedar, pine, and oak; but it offers few inducements to the settler. The great valley of Buena Ventura next succeeds, which, although it offers more prospects of profitable cultivation, is by all accounts far inferior to that of San Juan. It lies nearly parallel to the latter, and is watered by the San Joachim river and its branches.

In this valley the Californian Indians principally dwell. The San Joachim receives its waters from the many streams that issue from the Californian range of mountains. These are well wooded, their base being covered with oaks, to which succeeds the red California cedar (*schubertia abertina*), and after it, in a still higher region, pines, until the snows are encountered. On the eastern side of this range, there is found very little timber, and in consequence of the want of moisture, trees do not flourish, even on the west side. The inland plain, constituting a large part of Upper California, is, according to all accounts, an arid waste; the few rivers that exist being periodical, and losing themselves in the sandy soil.

In climate, California varies as much if not even more than in natural features and soil. On the coast range, it has as high a mean temperature in winter as in summer. The latter is in fact the coldest part of the year, owing to the constant prevalence of the north-west winds, which blow with the regularity of a monsoon, and are exceedingly cold, damp, and uncomfortable, rendering fire often necessary for comfort in midsummer. This

is, however, but seldom resorted to, and many persons have informed me that they have suffered more from cold at Monterey, than in places of a much higher latitude. The climate thirty miles from the coast undergoes a great change, and in no part of the world is there to be found a finer or more equable one than in the valley of San Juan. It more resembles that of Andalusia, in Spain, than any other, and none can be more salubrious. The cold winds of the coast have become warmed, and have lost their force and violence, though they retain their freshness and purity. This strip of country is that in which the far-famed missions have been established; and the accounts of these have led many to believe that the whole of Upper California was well adapted for agricultural uses. This is not the case, for the small district already pointed out is the only section of country where these advantages are to be found. This valley extends beyond the pueblo of San Juan, or to the eastward of Monterey: it is of no great extent, being about twenty miles long by twelve wide.

The Sierra, which separates the valley of San Juan from that of Buena Ventura, is about one thousand five hundred feet high, barren and sandy. Pines cover its summit, and the climate is exceedingly dry and arid, though cooled by the fresh wind that passes beyond them. Next comes the central valley of Buena Ventura, which is a continuation of the Sacramento, and through which the San Joachim flows. Being confined within the two ranges of mountains, and not having the same causes operating to modify the temperature as the smaller valley of San Juan, the heats of its summer are oppressive, the thermometer ranging, it is said, higher than within the torrid zone, and the heat continuing without cessation.

Although the Californian Range is covered with snow in close proximity to this valley, it seems to have but little effect in modifying the climate, which is represented as tropical throughout the year. This valley extends as far south as the San Bernardino Mountain. The residents in California say that they have never known the wind to blow from the north-east within thirty miles of the coast.

The Sacramento is the largest river in California. One of its branches, Destruction river, takes its rise near Mount Shaste, and was examined throughout the whole of its course by our land party, until it joined the Sacramento: the latter is thought by some to pass through the mountains and join Pitt's river. Pitt's river is said to take its rise to the north-east of the Shaste Mountain, and from the information that I received, extends as far as Pitt's Lake, under the forty-second parallel. I have reason to doubt whether the length of its course is so great, and believe that the Sacramento has its source in the eastern spurs of the Shaste Mountain.

The first branch of any size in descending the Sacramento is that called Feather river, which joins it below the Prairie Butes, coming from the north-east. This branch takes its rise in the California Mountains, near their northern end, and has a course of about forty miles. The American river is a small branch that joins the Sacramento at New Helvetia. After receiving this stream, the Sacramento is joined by the San Joachim, which courses from the south, and below their con-

fluence enters the bays of San Pablo and San Francisco.

The Sacramento is navigable for boats to the distance of one hundred and fifty miles, and for vessels as far as New Helvetia. The upper portion of it, near the Prairie Butes, overflows its banks, and submerges the whole of the Sacramento Valley as far down as the San Joachim. This inundation is probably caused by the united effects of the Sacramento and the Feather rivers, as there is not in its bed sufficient room to discharge so large a quantity of water.

Upper California may boast of one of the finest, if not the very best harbour in the world,—that of San Francisco. Few are more extensive or could be as readily defended as it; while the combined fleets of all the naval powers of Europe might moor in it. This is, however, the only really good harbour which this country possesses; for the others so called may be frequented only during the fine season, being nothing more than roadsteads, affording little safety and but few supplies to vessels.

The principal articles imported are cotton cloths, velvet, silks, brandies, wines, teas, &c.; in return for which they receive hides and tallow, skins, wheat, and salmon. The attention of the inhabitants has been principally directed to the raising of cattle, and the greater part of the wealth of California may be considered as consisting of live stock. The exportations, on the average of years, is about one hundred and fifty thousand hides, and two hundred thousand arrobas of tallow. From four to five hundred sea-otter skins are brought in by the American hunters, and are valued at thirty dollars each. The beaver skins are comparatively few. Wheat has been exported to the Russian posts, to the amount of twelve thousand bushels.

The yield of wheat is remarkable, and in some places, where the land is well situated, very large returns are received. Mr. Spears, of Yerba Buena, informed me that he had delivered to an active American farmer thirty bushels of wheat for seed, at a time when it was difficult to procure it, under an agreement that he should have the refusal of the crop at the market price. In the July following, he delivered him three thousand bushels, and on its delivery, he found that the farmer had reserved six hundred bushels for himself; and this, without estimating the loss from bad reaping and treading out with horses, would give one hundred and twenty for one. This is not considered a fair criterion or average, as the land was remarkable for its richness and was well attended to; but Mr. Spears and several others assured me that the average would be as high as eighty bushels yielded for one planted.

Indian corn yields well, as also potatoes, beans, and peas. The cultivation of vegetables is increasing rapidly, and supplies in these latter articles may be had in abundance and of the finest quality.

The country appears to be well adapted for grapes. Those that have been tried at the missions yield most abundantly; and about two hundred casks, each of eighteen gallons, of brandy, and the same quantity of wine, are made. The cultivation of the grape increases yearly, but is not sufficient for the supply of the country, as large quantities of foreign wines and liquors are im-

ported, which pay an enormous duty; and although California may not boast of its dense population, every intelligent person I met with agreed that it consumed more spirits in proportion than any other part of the world. The wine of the country which I tasted is miserable stuff, and would scarcely be taken for the juice of the grape.

The salmon-fishery, if attended to, would be a source of considerable profit, yet I was told that the Californians never seem disposed to attempt to take them. The general opinion is, that they are too indolent to bestir themselves, and they naturally choose the employment which gives them the least trouble. Above every thing, the rearing of cattle requires the least labour in this country, for it is only necessary to provide keepers and have their cattle marked. This done, they can support themselves by the increase of the stock. At the missions, the manufacture of various coarse articles had been undertaken by the missionaries as a step in the education of the neophytes. Among these were blankets and wearing apparel sufficient to supply all the Indians; but with the decline of these establishments, the manufactures have in great part been discontinued. Soap of a good quality is manufactured in considerable quantities, and it is thought that it might be exported at a profit, if the proper arrangements were made to use the grease that is now thrown away. The necessary alkali is very abundant. Leather of an excellent quality is also made and well tanned, but in such small quantities as to be hardly sufficient to supply the wants of the country.

There are in California only two or three water-mills for grinding flour, and these are owned by foreigners. The mills in general used in the country, are composed of no more than two burr-stones. To the upper stone a cross-beam is secured, to which mule-power is applied. In most of the estancias there is to be found a mill in an apartment adjoining the kitchen, if not in it. The whole is as primitive as well can be, although I have no doubt it answers all the wants of this rude and indolent people.

From all accounts, besides cattle, the country is well adapted for the raising of sheep, which simply require watching, as they can find plenty of nutritious food the whole year round; but there has been no attention paid to this sort of stock, and the wool is of very ordinary quality. The mutton is thought to be of very fine flavour.

Hogs are raised in some parts, and might be fed to great advantage on the acorns which are abundant on the hills, where the land is not susceptible of cultivation. Pork may be packed at three dollars the hundred-weight. What adds to the facility of doing this business, is the fact that large quantities of salt collect in the ponds in the dry season, which may be obtained for the expense of carting it.

As respects trade, it may be said there is scarcely any, for it is so interrupted, and so much under the influence of the governor and the officers of the customs, that those attempting to carry on any under the forms usual elsewhere, would probably find it a losing business. Foreigners, however, contrive to evade this by keeping their vessels at anchor, and selling a large portion of their cargoes from on board. Great partiality is shown to those of them who have a full understanding with his

excellency the governor; and from what I was given to understand, if this be not secured, the traders are liable to exactions and vexations without number.

On the 20th of August, Lieutenant-Commandant Ringgold left the Vincennes with six boats, accompanied by Dr. Pickering, Lieutenants Alden and Budd, Passed-Midshipman Sandford, Midshipmen Hammersly and Elliott, and Gunner Williamson, with provisions for thirty days, accompanied by an Indian pilot. They first passed the islands of Angelos and Molate, next the points of San Pedro and San Pablo, and then entered the bay of San Pablo.

San Pablo Bay is of a form nearly circular, and ten miles in diameter; many small streams enter it on all sides, from the neighbouring hills. On the east side of this bay, the river Sacramento empties into it through the Straits of Kaquines.

The party took the south-east arm of the Sacramento, and proceeded up the stream for the distance of three miles, where they encamped, without water, that of the river being still brackish. The soil was hard, from being sunburnt, and the foot-marks of the cattle, which had been made during the last rainy season, still remained.

In the morning, they discovered that they had taken the wrong branch of the river, for this led immediately into the San Joachim. They, in consequence, returned to the entrance, where they began their survey. On the 23rd, they reached the residence of Captain Suter, and encamped on the opposite bank.

Captain Suter is a Swiss by birth, and informed them that he had been a lieutenant in the Swiss guards during the time of Charles X. Soon after the revolution of July, he came to the United States, and passed several years in the state of Missouri. He has but recently removed to California, where he has obtained from the government a conditional grant of thirty leagues square, bounded by the Sacramento on the west, and extending as far up the river as the Prairie Butes. The spot he has chosen for the erection of his dwelling and fortification, he has called New Helvetia; it is situated on the summit of a small knoll, rising from the level prairie, two miles from the east bank of the Sacramento, and fifty miles from its mouth. New Helvetia is bounded on the north by the American Fork, a small serpentine stream, which has a course of but a few miles. This river, having a bar near its mouth, no vessels larger than boats can enter it. At this place the Sacramento is eight hundred feet wide, and this may be termed the head of its navigation during the dry season, or the stage of low water.

When Captain Suter first settled here in 1839, he was surrounded by some of the most hostile tribes of Indians on the river; but by his energy and management, with the aid of a small party of trappers, has thus far prevented opposition to his plans. He has even succeeded in winning the goodwill of the Indians, who are now labouring for him in building houses, and a line of wall, to protect him against the inroads or attacks that he apprehends, more from the present authorities of the land, than from the tribes about him, who are now working in his employ. He holds, by appointment of the government, the office of administrator, and has, according to his own belief, supreme power in

his own district, condemning, acquitting, and punishing, as well as marrying and burying those who are under him. He treats the Indians very kindly, and pays them well for their services in trapping and working for him. His object is to attach them, as much as possible, to his interests, that in case of need he may rely upon their chiefs for assistance.

Captain Suter has commenced extensive operations in farming; but in the year of our visit the drought had affected him, as well as others, and ruined all his crops. About forty Indians were at work for him, whom he had taught to make adobes. The agreement for their services is usually made with their chiefs, and in this way as many as are wanted are readily obtained. These chiefs have far more authority over their tribes than those we had seen to the north; and in the opinion of an intelligent American, they have more power over and are more respected by their tribes than those of any other North American Indians. Connected with the establishment, Captain Suter has erected a distillery, in which he makes a kind of pisco from the wild grape of the country.

New Helvetia was found to be in latitude $38^{\circ} 33' 45''$ N., and longitude $121^{\circ} 40' 5''$ W.

The best route from New Helvetia to the United States is to follow the San Joachim for sixty miles, thence easterly, through a gap in the Snowy Mountains, by a good beaten road; thence the course is north-easterly to Mary's river, which flows south-east and has no outlet, but loses itself in a lake; thence continuing in the same direction, the Port-neuve river, in the Upper Shoshone, is reached; and thence to Fort Hall. According to Dr. Marsh, (an American of much intelligence, resident at the mouth of the San Joachim, to whom we are indebted for much information of the country,) there is plenty of fresh water and pasturage all the way, and no proper desert between the Californian Range and the Colorado.

On the 25th, the boats left New Helvetia. It was discovered, previous to starting, that four men had deserted from their party. This is a common circumstance in this port, and very few vessels visit it without losing some portion of their crews. The dissolute habits of the people form such strong temptations for sailors, that few can resist them. A number of men who were deserters were continually around us. Among others, the sergeant and marine guard that had deserted from H.B.M. ship Sulphur were the most troublesome. Their appearance did not prove that they had changed their situation for the better.

Ten miles up the river, a sand-bar occurred, over which it was found that the launch could not pass. Lieutenant-Commandant Ringgold therefore left her at this place, under charge of Mr. Williams, taking sufficient provisions in the boats. The oaks became more scattered, and the soil thickly covered with vegetation, although parched up by continued drought.

On the 26th, they reached the mouth of Feather river, which is fifteen miles above New Helvetia. It appeared nearly as broad as the main stream, but there is a bar extending the whole distance across it, on which the boats grounded. On the point of the fork, the ground was strewn with the skulls and bones of an Indian tribe, all of whom are said to have died, within a few years, of the

tertian fever, and to have nearly become extinct in consequence.

Game is represented to have decreased in this vicinity, from the numbers destroyed by the parties of the Hudson Bay Company, who annually frequent these grounds. Large flocks of curlew were seen around; and the California quail, which disappeared since leaving the coast, was again seen. The trees that line the banks consist of the cottonwood, &c. Single oaks, with short grass beneath them, are scattered over the plain.

As they advanced, game became more plentiful, and elk were found in abundance: some were of large size, and at this season of the year, the rutting, they are seen generally in pairs; but at other times, the females are in large herds. They are fine-looking animals, with very large antlers, and seemed, in the first instance, devoid of fear. The herds are usually thirty to forty in number, and are chiefly composed of females and their young. The father of the flock is always conspicuous, and with his horns seemed to overshadow and protect the family.

The tula or bulrush was found in great quantities, growing on the banks. The Indians use its roots as food, either raw, or mixed with the grass seed, which forms the principal article of their food. This root is likewise eaten by the grisly bear.

At the encamping-place was a grove of poplars of large size, some of which were seventy feet high, and two and a half feet in diameter. The leaf resembled that of the American aspen. At night they had a slight thunder-shower. The wolves and bears had entered the camp during the night, although there was a watch kept at each end of it. The howling of the wolves was almost constant.

On the 27th, the current in the Sacramento had become much more rapid, and the snags more frequent; its banks were on an average about twenty feet above the water, though there was every appearance on them of their having been overflowed.

On the 29th, they for the first time met Indians, who appeared quite shy, concealing themselves behind trees. As they increased in numbers, however, they became more confident, and invited the party to land. Towards noon the character of the country began to change, and trees of a larger size than before were seen, growing out from the banks. A little after noon, they met with the remains of a fish-weir. Some Indians were seen along the banks, armed with bows, arrows, and lances: none but males appeared; they, however, made no hostile demonstrations.

Game and fur-bearing animals had become more numerous, and among them were the lynx and fox. The latter is the species whose fur brings a high price in China, where as much as twenty dollars is paid for a skin. This fox is said to have one peculiarity, namely, that when chased it will ascend trees. Bears were also in great numbers. It is reported that they will sometimes attack and eat the Indians.

The Indians observed by the party were generally fine robust men, of low stature, and badly formed; but the chiefs, five or six in number, were fully equal in size to the whites, though inferior in stature and good-looking as compared with the generality of the Polynesians. They had a strong resemblance to the latter, except that the nose was

not so flat and their colour rather darker. Although the men go naked, the women are said to wear the maro. The males seemed to be exceedingly jealous, on account, it is said, of the unprincipled conduct of the whites who have occasionally passed among them. Their hair is not worn as long as it is by the northern Indians, and is much thicker. They had beards and whiskers an inch or two long, very soft and fine.

On the morning when the party were breaking up camp to embark, an Indian boldly seized the bowie-knife-pistol of Dr. Pickering, and made at once for the woods. He had chosen his time well, for no arms were at hand. Several of the men pursued him, but by his alertness he eluded all pursuit; and having gained the bushes, escaped with his prize.

This act, committed in open daylight, and at the risk of life, shows how strong is their propensity to steal. All the other Indians present soon understood the difficulty, and at once took their departure. The chief was not present; those who were concerned in the theft had not been before seen, and it was conjectured belonged to one of the rancherias higher up the river. A short distance above the place where this occurred, they met the chief, to whom the theft was made known, and who promised to restore the stolen article.

At noon they passed the Prairie Butes, which are a collection of isolated hills, rising from the level plain, as if out of the sea. Indians were seen on the west bank of the river, with a number of women in company, who seemed well disposed to enter into communication, as they motioned the party to land.

In the afternoon they encamped on the west bank, at a considerable distance above the Butes. The river was here only two hundred feet wide, and its banks but fifteen feet high. The trees on the shores had now become quite thick, and grew with great luxuriance; so much so, that were the sight confined to the river banks, it might be supposed that the country was one continued forest, instead of an open prairie.

The Indians who visited them at this camp, were less timid, and a much finer-looking set of men than those before seen. They allowed the officers and men to examine their bows and arrows, and appeared to have confidence in our good feeling towards them. The old chief welcomed the party, granted them permission to encamp on the bank, and then departing with all his tribe, nothing more was seen of him until late the next morning.

On the 31st, they again proceeded, and passed several Indian villages. Before noon, they arrived at a substantially-built fish-weir, of which the Indians began to take a part down, but Lieutenant-Commandant Ringgold deeming that this was the termination of his exploration, motioned to them to desist.

The river was examined for two or three miles above, and found to be filled with rapids, and innumerable difficulties caused by snags and sandbars. Here Lieutenant-Commandant Ringgold ascertained his position to be in latitude $39^{\circ} 13' 39''$ N., longitude $122^{\circ} 12' 17''$ W., which, joined to the work of the land party, gives the exploration of the whole extent of the Sacramento river, from its source to the sea, a distance of two hundred miles. The first fork, or the junction of Pitt's with that of

Destruction river or creek, is in latitude $40^{\circ} 47' N.$, longitude $122^{\circ} 34' W.$

At the place where the survey ended, the river was two hundred feet wide, its banks being twenty feet above the river; but it was evident that its perpendicular rise exceeded this, as there was every appearance of its overflowing them; and, according to the testimony of the Indians, the whole country was annually inundated.

On the afternoon of the 31st of August, the party turned to go down the stream, and with the aid of the current made rapid progress. Towards sunset they entered the small stream called Bute, on whose banks they encamped. Here they were much disturbed, both with bears and musquitoes.

On the 1st of September, they made an early start, and about noon reached the village where the theft of Dr. Pickering's pistol had been committed.

It was with some difficulty that the Indians were persuaded to approach; but a fine-looking savage, more bold than the rest, at last ventured to do so, and gave the information that the Indian who had committed the theft resided at the village up stream.

The weapon therefore not being forthcoming, Lieutenant-Commandant Ringgold determined to seize this man as a hostage for the return of the article. He was accordingly secured, his arms pinioned behind him, and led down to the boat, when two men were ordered to tie his legs; while they were in the act of doing this, he extricated himself, and jumped overboard. The guns were at once levelled, and half-a-dozen triggers ready to be pulled; but Lieutenant-Commandant Ringgold very properly stopped them from firing, and endeavours were made to recapture him, but without effect. These efforts having failed, they took to their boats, and pulled down the stream. The Indians who were on the banks, to the number of two hundred and fifty, made no demonstrations of hostility.

On the 3rd, they continued the survey, until they were below Feather river, when the provisions were so nearly exhausted that Lieutenant-Commandant Ringgold found that it would be impossible for him to examine that stream. The residents and trappers informed me that they had followed it to its source. From them I learned that it takes its rise in the Californian Range, from which it pursues a south-west course, until it falls into the Sacramento river. It is about forty miles in length. It is believed that the Spaniards, when they first explored this country, designated the Feather river as the Sacramento, and gave to the true Sacramento the name of the Jesu Maria. In no other way, at least, can the error which has occurred, in relation to the Jesu Maria, be explained; and on this supposition, the accounts of it become intelligible.

In the neighbourhood of the Sacramento, there are sometimes to be found small lakes or bayous, which seem to be filled at high water, but become stagnant during the dry season. These the elk and deer frequent in large numbers. Their cry or whistle is at times very shrill, and may be heard for a great distance.

At the junction of the Feather river with the Sacramento, the latter increases in width to nearly double. It was found just below the junction to be from twelve to fifteen hundred feet broad, forming a sort of bay, but it soon again contracts. They

encamped about ten miles below the confluence of these streams.

On the 4th, they had returned to Captain Suter's quarters, where they stayed till the 6th, when the survey being finished down to this point, they descended the river, on their return to the ship. On the 8th, they had arrived at the mouth of the river, and the Straits of Kaquines. On the 9th, at midnight, they reached the Vincennes, after an absence of twenty days.

On the opposite side of the bay of San Pablo, or to the west, are some of the finest tracts of country in California. One of these is called the Valley of Nappa, another that of Zonoma, and a third, San Rafael. In Zonoma is situated the town of the same name, the residence of General Vallejo, and the mission of San Rafael. The fertile country extends across to Ross and Bodega, the two Russian settlements before spoken of. Zonoma is the seat of government, and is situated in an extensive plain, with some high hills for its southern boundary. The plain is covered with fine oaks, and there is a never-failing stream of water passing through it. There is besides an inlet from the bay, which allows a boat navigation to it of about twelve miles.

Upon paper, Zonoma is a large city, and laid out according to the most approved plan. In reality, however, it consists of only the following buildings: General Vallejo's house, built of adobes, of two stories, which fronts on the public square, and is said to be one of the best houses in California. On the right of this is the residence of the general's brother, Salvadore, and to the left, the barracks for the accommodation of the guard for the general, consisting of about twenty fusileers. Not far removed is the old dilapidated mission-house of San Francisco Solano, scarcely tenanted, though a small part of it is inhabited still by the Padre Kihias, who continues, notwithstanding the poverty of his mission, to entertain the stranger, and show him all the hospitality he can.

Besides the buildings just enumerated, there were in the course of construction, in 1841, a neat little chapel, and a small building for a billiard-room. There are also three or four more houses and huts which are tenanted; and at some future day it may boast of some farther additions.

General Vallejo was one of those who figured in the revolution of 1836, and was then appointed Commandant-General of Alta-California. He is now the owner of large estates; and having chosen this part of the country for his residence, he is free from the opposition and broils that are continually growing out of the petty concerns of the custom-house and its duties. He is not over-scrupulous in demanding duties of the vessels entering the port of San Francisco; and until he has been seen and consulted, a vessel trading here is liable to an indefinite amount of duties. A portion of the payment adds to his wealth, and how much goes to the government is not known; enough, I was told, in some cases, to save appearances, and no more. The foreigners who trade here are very attentive to him; and it might be supposed, before making inquiry into the cause, that he is a great favourite with them. The highest official protection is necessary for all those who wish to prosper in their trade to this port, and to prevent exactions from subordinates.

CHAPTER XXXV.

SAN FRANCISCO TO MANILLA.

PREPARATIONS FOR SAILING—DEPARTURE FROM SAN FRANCISCO—DANGEROUS POSITION OF THE VINCENNES—THE SQUADRON AT HONOLULU—ADVENTURE ON SHORE—CASE OF HERRON THE COOPER—HERRON FOUND GUILTY AND FINED—TRADE AND RESOURCES OF THE HAWAIIAN GROUP—FUTURE PROSPECTS OF THE HAWAIIAN ISLANDERS—DEPARTURE FROM HONOLULU—FINAL DISPOSITION OF THE SQUADRON—THE VINCENNES AND FLYING-FISH PART COMPANY—CRUISE OF THE VINCENNES—SEARCH FOR ISLANDS—WAKE'S ISLAND—MANILLA—THE VINCENNES AND FLYING-FISH JOIN COMPANY—CRUISE OF THE FLYING-FISH—MANILLA.

By the 28th of October, 1841, all the exploring parties had returned to San Francisco. The duties of the observatory and surveys were completed, the instruments embarked, and preparations made to sail with the first fair wind.

The brig bought to supply the loss of the Peacock, wrecked on the bar of the Columbia, I now new-named the Oregon, and gave the command of it to Lieutenant Carr, first lieutenant of the Vincennes. It was with no little regret that I parted with Lieutenant Carr, the executive officer of my ship for upwards of two years, during which time his duties had been at all times responsible, arduous, and valuable to the expedition. My regret at parting with him gave way, however, to the pleasure of assigning him a station to which his conduct had so justly entitled him, and which he was so well qualified to fill.

To complete our supplies for the return voyage, it was expedient that we should again visit the Hawaiian Group: this was rendered absolutely necessary, in order to procure clothing for those who had lost every thing by the wreck of the Peacock; for deficiency in that important article might, had we pursued the direct route to the China Seas, have subjected the men, who had already undergone so much exposure, to the attacks of disease.

This necessity, added to the other delays the unfortunate loss of the Peacock had caused, was a source of profound regret, as it prevented me from availing myself of the permission granted in my instructions, to enter the Sea of Japan, through the Straits of Sangar. I gave up this plan, to which I had looked forward as one of the most interesting parts of our cruise, with great reluctance; but the season was rapidly passing, and to undertake this remote expedition would render it impossible to accomplish the other objects marked out for me previous to my return to the United States. We might not, perhaps, have succeeded in entering into communication with the inhabitants of that interesting and little-known country; but we might certainly, by landing on some of the islands adjacent to its coast, have obtained much interesting information, and added greatly to the collections of our scientific departments.

On the 1st of November, we had a wind that enabled us to make sail, although it was late in the day before it was sufficiently strong, and by that time the ebb tide was far spent. To avoid any farther loss of time, I determined to make the attempt. Signal was accordingly made; and the vessels were in a few minutes under way, and stand-

ing out of the harbour. It may, indeed, be said, that it is practicable to enter and depart from this port whenever the tide is favourable. We continued beating out to gain an offing until towards sunset, when it fell calm, and the tide failed us. The Vincennes was, therefore, compelled to anchor in six and three-fourths fathoms water, three miles from the land; and signal was made to the two brigs, which were about three miles outside of our position, to do the same.

On our coming to anchor, there was scarcely any swell, and the ship lay almost as still as if she had been within the harbour. The sun set clear, and every thing betokened a calm and quiet night.

At about 10 P.M. the swell began to increase, without any apparent cause, and so rapidly as to awaken my anxiety; but being in such deep water, I thought that the vessel was sufficiently distant from the bar not to be exposed to any breakers. As the flood continued to make, the swell increased, and by midnight we were enveloped in fog, without a breath of air, and the ship rode over the rollers, that were now becoming very heavy, and caused her to pitch violently. There was, however, no break to them; but as ample scope of cable had been given, the ship occasionally swung broadside to, when the heavy pitching was changed to rolling so deep as to endanger our masts. At 2 A.M. a breaker was heard outside of us, passing in with the roar of a surf, after which they became constant, and really awful. The ship might now be said to be riding in breakers of gigantic size; they rushed onwards with such a tremendous roar and violence, that as each wave was heard approaching, it became a source of apprehension until it had safely passed. Such was its force that when it struck the ship, the chain cable would surge, the ring-stoppers part, and some few fathoms of the cable escape. As the time of high water approached, the roar of these immense breakers was constant. The ship was as if tempest-tost, and our situation became at each moment one of greater solicitude. The actual danger of wreck was not indeed great, for in the event of parting our cable, the tide would have carried us towards the harbour, and into deeper water, where the rollers would have ceased to break; and there was no great danger that we would drift on the bar, which was a mile or two to the northward of our position.

I looked forward with anxiety for the time of high water, as the period when we should be relieved from our unpleasant situation, not only by the

change in the course of the tide, but also by the cessation of the breakers.

Our situation afforded me an opportunity of measuring the velocity of the waves as they passed the ship; and though the distance was short, yet the observations were numerous, and gave the velocity at from fifteen to eighteen miles an hour; their estimated height was over thirty feet, their width, from eight hundred to one thousand feet.

At half-past three, one of these immense breakers struck the ship broad on the bow, and broke with its full force on board: the cable surged; the stoppers were carried away; and the whole spar-deck swept fore and aft; the boats and booms broke adrift, the former were stove, and the latter thrown with violence to one side.

Unfortunately, Joseph Allshouse, a marine, who was in the act of ascending the ladder at the time, was struck by one of the spars, and so much injured that he died a few hours afterwards.

It was not until between seven and eight o'clock that the ship could be relieved from this situation: at that time a light air from the land sprung up, of which advantage was at once taken to weigh our anchor. The rollers, however, had by this time ceased to break, the sea began to fall, and a few hours afterwards regained its former placid and quiet state. The fog was still dense when we reached deep water, where we again dropped anchor; but shortly after the weather cleared up, and we had communication with the Porpoise and Oregon; they having reached deeper water, had fortunately not experienced any of the rollers.

We now got under way, and stood for the bay of Monterey, from whence I sent the Porpoise with despatches for the United States, ordering her to land them, and in case she did not meet the Vincennes, to make the best of her way to the Sandwich Islands.

The next day being foggy, I bore away in company with the Oregon.

On the 5th, the weather continuing thick and foggy, with strong breezes from the northward and westward, I made all sail and parted company.

The wind on the 7th, when we had reached the latitude of 27° N., began to incline to the north-east, and the temperature became mild.

On the 13th, I shaped our course to run over one of the positions of Copper's Island, supposed to exist in longitude 151° 36' W., and latitude 25° 48' N. On the afternoon of the 14th, we were within five miles of its assigned place, and the weather was perfectly fine, with a clear horizon, but there was no appearance of land.

On the morning of the 16th, we made the island of Mani, and on the 17th, at daylight, the island of Oahu, anchoring at 10 A.M. off the town of Honolulu. The Porpoise came in at 2 P.M., and the Flying-Fish at five o'clock of the same day. The following day the trade-wind was too strong to admit of the Vincennes entering the inner harbour; but the Porpoise and tender were enabled to do so. The Oregon joined us in the afternoon, and on the next day at an early hour the squadron was again moored in the harbour of Honolulu.

Our reception was even kinder than before; and every facility that we could desire was offered for advancing our duties and procuring the necessary stores and clothing that our shipwrecked officers and men required.

Honolulu showed signs of improvement, but I regretted to perceive that during the year the morals of the place seemed to have declined. The number of grog-shops had apparently increased, and the sailors' dancing-halls, with their music, were allowed more license than at our first visit. Yet, as far as the prompt execution of the law went, I did not find the authorities deficient. Indeed, at times, Governor Kekuanaoa is rather too precipitate in his decisions, of which we soon had an instance.

During our stay of ten days, the crews were allowed, in turn, recreation on shore. Among the number was Lewis Herron, the cooper. In the course of his liberty, he was desirous of entering one of the sailor's boarding-houses, at the door of which his progress was arrested by a coloured man, who was on guard with an old cutlass, and who threatened Herron with violence if he attempted to enter. This, Herron, though usually a very quiet and orderly man, at once resented; and the altercation finally came to an angry dispute as to who was the better man. Herron, determined to prove that he was, laid hold of the sentry, overthrew him, took the rusty cutlass away, and struck him with it so as to give the man a slight scratch on the leg. Herron now brandished his weapon in victory; but being told by the bystanders that it was unlawful to carry weapons, he determined to take it himself to the governor at the fort, and deliver it up. On his way thither, and just before he arrived, he was met by some soldiers, who at once seized and carried him before the governor, with the sword in his hand, which he had refused to give up to any one else.

The governor had a kind of trial held by himself, and not according to law, (which provides for trial by jury,) to which he summoned the very man who had caused the quarrel, as a witness, without any formality or oath, and sentenced Herron to fifty dollars fine, and to receive one hundred lashes; while the person who had been guilty of using the arms, received but a nominal fine. One of the officers hearing of the circumstance in the afternoon, went to see Herron, heard his story, and then saw the governor, who promised that the man should have another hearing or trial the next morning, at nine o'clock, and that he should not be punished until I was informed of it. In the morning, however, to my great surprise, I heard that, by the governor's orders, and in his presence, Herron had, at eight o'clock, an hour before the time his new trial was to take place, received twenty-eight lashes. On learning this circumstance, an officer was at once sent to wait upon the governor, to request an explanation of the proceedings, and that Herron might be given up, and held subject to the governor's order, for a proper trial. On receiving the officer, Governor Kekuanaoa declared that it was a misunderstanding relative to his having promised a new trial, and declined giving up the man. In consequence of this, I at once sent a message to demand him, and to state that if he was not surrendered, I should be obliged to take him, for I would not suffer him to remain any longer in the

keeping of persons who would inflict punishment with so much precipitation. This caused his delivery. Shortly after, I received a letter, telling me that the corporeal part of his punishment was remitted, but demanding the fine. I took this occasion to write the governor a letter, pointing out wherein he had erred, in order that he might not fall into a similar error.

The next day I was notified that he would be again tried before a legal tribunal, viz. the governor and the United States' consul. The day after, he was accordingly sent on shore to undergo a trial, which he himself wished, for the purpose of proving whether he was guilty and subject to the fine. The trial of Herron took place in the grass-house of the king; the scene was characteristic, and will show the manner of conducting trials in the Hawaiian Islands. Governor Kekuanaoa, the American consul, Captain Hudson, Dr. Judd of the American Mission, who acted as interpreter, and several officers belonging to the squadron, as well as those of the government police, numerous residents, of all colours and classes, the prisoner, his friends and accusers, were present. At one table the governor and Dr. Judd were seated, at another the consul and Captain Hudson, while the prisoner and witnesses, with the spectators, were standing in groups around. The court was opened in due form, and Dr. Judd stated the indictment, to which Herron pleaded not guilty; every thing was conducted with due solemnity: the oath was then administered by the American consul, to the witnesses on both sides. Dr. Judd examined and interpreted the whole. During this proceeding all were deeply intent in ferretting out the truth, with the exception of his excellency the governor, who was occupied most of the time in searching his little white pet dog, that was lying on the table before him, for fleas. The whole trial was, however, fairly conducted, and resulted in proving that Herron was guilty. Herron was fined fifty dollars, which was paid, and the business ended.

I was satisfied, however, that the governor had in this case acted with unbecoming haste and inconsiderateness, and at the same time was wanting in delicacy to his best friends, for we, of all nations, are the most inclined to respect his laws and uphold his authority. I called upon him before my departure to take leave, when he admitted that the course he had pursued was an unusual one, when foreigners were concerned; but from the explanations he made, I was satisfied his intention was to do right, but like many others when vested with authority, he was not inclined to delay action on a case he considered so clear as this. It proved a good lesson for him, and I do not believe he will err in the same way again.

The trade of the Hawaiian Group is, at present, confined within very narrow limits. The islands produce but little, and their consumption of foreign products is necessarily small. The capabilities of the islands have generally been underrated, for their soil and climate are suitable for raising all tropical productions in considerable quantities, and at a moderate cost. But very little investment of capital has yet taken place, and the business that has induced the establishment of several commercial houses has been more that of transit than for the purpose of supplying the consumption of the islands, or obtaining their exports. A table of

statistics, which was published in a newspaper at Oahu, and compiled by intelligent merchants there, gives the amount of imports actually landed at four hundred and fifty-five thousand dollars, while the exports of native produce are no more than ninety-eight thousand dollars. From this great difference between the imports and exports, it would appear that many of these articles must have been re-shipped to other ports, or are still on hand. The latter I believe to be the case. The trade on the north-west coast, formerly so much resorted to by our vessels, is entirely broken up by the Russians, who have interdicted the taking of furs on the coast of their territory, and obtain their supplies exclusively from the Hudson Bay Company, or by the latter, who have adopted the principle of underselling all competitors, and have thereby caused a monopoly, which effectually shuts out all small traders. Some articles of Chinese manufacture are sent from the Sandwich Islands to Mexico, but to no great amount. There are, comparatively, few transient vessels that call at these islands on their way to China, and the whole trade seems now confined to but a few vessels. One-half of the imports is set down as received from the United States.

Although the Sandwich Islands are not so fruitful as many of the other islands of Polynesia, yet their geographical situation has rendered them hitherto by far the most important group in the Pacific Ocean.

They are the favourite and most convenient resort for those whale-ships whose cruising-ground is the North Pacific; and the amount of property engaged in this business, visiting the ports of the Sandwich Islands annually, is equal to three millions of dollars. To the supply of this fleet, the labour of the inhabitants has principally been directed.

The chiefs have ceased to look to their groves of sandalwood as a source of profit, and have begun the cultivation of sugar, which, together with silk, now attract much attention; but until some capital be invested in these cultures, and the business be better understood, these articles cannot be raised to any large amount; yet the provisions and supplies to ships, suffice to afford all the necessary comforts to the inhabitants of this group.

Fortunately for the Sandwich Islands, they have no port that is defensible against a strong naval force, and therefore their consequence will be comparatively small in a political point of view. No foreign power, in fact, could well hold them, without great expense and difficulty. Honolulu is the port where vessels can best receive repairs, but it can only be used by the smaller class. By these circumstances, the neutral position of this group I think is insured; and this is most desirable for its peace and happiness. This fact seems to me to be tacitly acknowledged by the maritime powers, as no attempt has as yet been made to take possession of them, and they will, in all probability, be long left in the enjoyment of their neutrality, which king Kamehameha III. is now endeavouring to establish through a formal recognition of his kingdom by the United States, England, and France, by negotiations that are now pending. Such recognition will render them less liable, if not altogether exempt from aggressions. These islands seem intended for peaceful occupations alone; their products, situation, and inhabitants, require and

wish it. The power on which they must become dependent hereafter, is that which is to be established in Oregon and California; and, adapted as they are to supply all the products of the tropics, they will become a valuable appendage to those states; but I deem the idea entertained by many, who suppose they ever can become so powerful as to command those states, to be a mistake. So far as the consumption of a small amount of manufactures go, and the convenience of our whaling fleet, but no farther, they will be beneficial to the United States. In this relation, the character of the government becomes a source of solicitude to us. It is the interest of the United States that they should maintain the neutrality that they seek to establish, and should not be permitted to fall into the hands of any other power.

I am rather disposed to think, that, in the progress of civilization in the South Seas, this group will be considered of less importance than it now appears, and instead of its being looked to as a point of attraction, or a place wherein to obtain information and supplies, it will be only visited by whalers for recruiting. Their growth has already arrived at the greatest extent to which it can ever reach. A direct communication with Oregon and California will do away with the necessity of intercourse through the islands; they must, consequently, be left to their own resources to maintain trade; and when California and the Oregon territory can afford the whalers equal advantages, which, when settled, they will do in a few years, the advantages derived from this source will be withdrawn. Unfortunately for these islands, a fictitious importance has been ascribed to their geographical position, in the belief that much political ascendancy in the Pacific must accrue to the nation which may possess them; this state of opinion has been brought about by the exertions of the American missionaries, who have been the means of raising the natives so rapidly in the scale of civilization, and from whose success our countrymen have acquired much influence. This ascendancy, however, has been partly the means of provoking a sectarian war, which has brought about much trouble, and been the cause of great distress both to the king and people. These troubles have probably been of some advantage to the people, and afforded the means of increasing their wealth, and causing a demand for their products, which, though trifling as to amount, yet in such a small community has been sensibly felt, and has enabled them to obtain many advantages they could not have had otherwise. I have some doubt whether the Hawaiian Islands can ever become an independent nation by the exertion of their own people, since they have unwisely invited foreigners to reside among them, and given them equal rights and privileges with natives. Endeavours are now making to introduce foreign labourers and capital, which, although proceeding from a disposition to advance and develop the resources of the islands, will have a tendency to injure the native labouring population. The introduction of foreign labour will necessarily bring with it foreign habits and custom, which the natives are, even now, too prone to imitate; and the examples that are set before them are generally, if not always, of the worst description.

The inducements held out to the king and chiefs to make large grants of land to foreigners, have

been great; but such grants can never be carried into effect without endangering the very existence of the government and people. In all cases that came within my knowledge on the islands, the object of the majority of foreign residents was solely to increase their own wealth; and on the accumulation of a sufficient amount, they withdraw from the islands, taking their capital with them; and this will always be the case. So far, therefore, as their influence goes, instead of enriching the islanders, their exertions have in some degree had a contrary effect, and the result does not justify those engaged in mercantile pursuits, in attributing the advancement of the islands to themselves; on the contrary, they leave very little but evil habits and vices behind them. Few foreigners have made any permanent improvements, and when they have, they pass into the hands of others, to the exclusion of the natives, who are looked upon and treated as slaves.

It is impossible for a disinterested person to reside any time among these natives, without imbibing a strong interest in the progress of their institutions, and the development of their government. In the Hawaiians are seen many things to condemn; but they have, on the other hand, many good qualities, which their religious instructors are endeavouring by every means in their power to foster and develop. In taking leave of them, I cannot recall a single instance in which they did not conduct themselves towards us with a full belief that they were acting right; and I feel rejoiced to say, that during all our intercourse with them, no incident occurred to mar the harmony which existed on our first arrival. I am, indeed, fully persuaded that with proper attention and forbearance no difficulties will ever occur. One thing, however, ought always to be borne in mind on visiting this island, viz. that too much credit must not be given to those who will on your first arrival endeavour to impress on you their own views of the character of the people, and of those who have been their benefactors, and are constant in their exertions to promote the welfare of those they live among. The natives and the latter class are far better able to judge what the islands require or stand in need of than any casual visitor, or he who may be a sojourner only for a few weeks.

I shall always think with pleasure and satisfaction of the many friends we left in the Hawaiian Group; and I am fully satisfied, that, with few exceptions, and those growing out of a mistaken zeal, our country has just reason to be proud of the advance these islanders have made within the last twenty-five years in civilization, morals, and religion; an advance that has been almost wholly the work of our citizens, either at home or abroad, the one in furnishing the means, the other in giving the instruction.

The expedition had become so much identified with the history of these islands during our stay, that we were made familiar with all the village scandal. Few who live in such small places are aware how unfavourable an impression they make upon visitors, and the bad light in which they appear, by this habit of talking of each other; whatever may be the terms on which they associate together, or however discordant the materials of which the society is composed, they would do well to avoid showing their uncharitable feelings, or

making use of detraction to create a bias against others.

On the afternoon of the 27th November, we rejoined our vessels, and at 8 p.m. took our final leave of the Hawaiian Islands.

At midnight, signal was made to heave-to, in order that I might finish the instructions for the different vessels. Although it was out of my power to visit Japan, I had determined if possible to ascertain the character of the currents off that island. I therefore directed the Porpoise and Oregon to follow out, and explore the shoals and reefs extending in a west-north-west direction from the Hawaiian Islands, and proceed until they fell in with the current or stream that is supposed by some to set along the coasts of Japan, and resemble the Gulf Stream off our own coast. This done, they were ordered to proceed through the China Seas, to Singapore, in the Straits of Malacca.

With the Vincennes and tender it was my intention to proceed to Strong's and Ascension Islands, which the Peacock had been unable to reach in her cruise, examining every shoal that might lie in my way, and thence to Manilla. I proposed on leaving that port to explore and survey the Sooloo Archipelago, then proceeding to Singapore to meet the brigs, fill up with provisions, and thence sail for the United States, where it was incumbent on me to arrive by the 31st of May following. This, agreeably to my promise to my crew a year previous, left me just six months to perform the duty, of which at least one hundred and forty days were required for the actual passage.

We parted company from the brigs the next day at noon, and bore away under all sail to the southward and westward. At 4 p.m., the Flying-Fish made the signal "in want of assistance;" and on coming within hail, reported that her mainmast was sprung. Carpenters were at once sent on board, who reported that the mast was quite sound: the vessels were reduced to easy sail for the night in order to keep in company, as I intended in the morning, when the sea should have decreased, to have a farther examination of it.

I had now the prospect of another obstacle, in the delays this vessel must occasion me with a sprung mast, if such should prove to be the case, which I could, however, scarcely bring myself to believe. In order to secure an examination of the Sooloo Sea, which was a part of my original instructions, I gave Mr. Knox orders to act by himself, in case I should find it necessary to push at once to Manilla and avoid detention, directing him to touch at Strong's and Ascension Islands, and to part company if her spars were sound. This I was glad to find was the case, and on the 30th, we parted company in the latitude of Maloon's Island, the Vincennes steering a west course through the night under easy sail. At daylight sail was again made, and by noon we found the ship, by good observations, in latitude $19^{\circ} 19' N.$, longitude $165^{\circ} 25' W.$ The supposed position of the island being in latitude $19^{\circ} 20' N.$, and longitude $165^{\circ} 20' W.$, we had consequently passed directly over the place, with the weather so clear as to render all objects within a radius of fifteen miles perfectly distinct, and with two look-outs at the masthead, yet no signs of land were visible. I continued in its latitude until we had passed seventy miles to the westward, when we steered for another island, laid down in

Arrowsmith's charts in longitude $166^{\circ} 48' W.$, and latitude $19^{\circ} 17' N.$ On its parallel, we ran for sixty miles east and west of the assigned place; but in like manner, there was nothing perceived that indicated any proximity to land.

On the 3rd of December, we ran over the locality of a shoal, lying in $170^{\circ} 30' W.$, and latitude $18^{\circ} 20' N.$ This was likewise searched for, over a space of sixty miles east and west of its supposed locality.

Jane's Island, supposed to be in longitude $173^{\circ} 15' W.$, latitude $16^{\circ} 10' N.$, was next searched for. In doing this, I was greatly surprised to find that we had entered a strong current setting to the northward and westward. Our difference of latitude showed $24'$, and we were at once compelled to haul up to the southward, to reach the supposed locality of the island. We passed about five miles to the westward of its place, but no sign of land was seen. This was the first day since leaving Oahu, that we were able to write with any degree of comfort, the sea having become perfectly smooth.

I was at first disposed to doubt the accuracy of the observations for latitude, but the next day (5th December) proved them to be correct, nearly the same difference having occurred.

On the 6th, we reached the position of Gaspar Island, in latitude $15^{\circ} N.$, and as the different localities assigned it varied considerably in longitude, I determined to run on its parallel until I had passed them all.

On the 7th, we dropped a day, passing into east longitude. Our winds had become light, varying from the east to the south-west quarters, and it was generally calm throughout the night, so that we made little progress.

On the 10th, the current was found setting west-south-west three-quarters of a mile, both by the difference of the observations, and the current-log. The pot, at this time, was seen at thirty-two fathoms depth, several fathoms lower than at any previous observation. The temperature of the water was 81° , the day fine, and beautifully clear.

We continued on the parallel of latitude $15^{\circ} N.$ until the 14th, when we found ourselves in the longitude of $174^{\circ} 50' E.$, having passed over all the localities assigned the island, between longitude $175^{\circ} W.$ and $174^{\circ} 20' E.$ I am fully satisfied that it does not exist within those meridians.

Having been thus retarded, the fear I entertained of meeting with light, and in all probability, westerly winds, determined me to forego my visit to Strong's and Ascension Islands, and haul to the northward, to look for some of the many shoals laid down on the track usually pursued by ships bound to the China Seas.

After this determination was made, I hauled up for an island said to exist in longitude $171^{\circ} 42' E.$, and latitude $16^{\circ} N.$ On the night of the 15th we hove-to, in order to run over the locality by daylight. This position was passed over, and forty miles to the westward of it explored, but nothing indicating a proximity to land was seen. The supposed site of Cornwallis Island, in longitude $169^{\circ} 33' E.$, and latitude $16^{\circ} 51' N.$, was in like manner passed over.

Wake's Island next claimed my attention. On the 19th we reached its parallel, and hove-to till daylight of the 20th, when we discovered it, bearing west-by-north, about nine miles distant. The

wind was light from the north-north-east. After breakfast, several boats were sent to survey the island. Wake's Island is a low coral one, of triangular form, and eight feet above the surface. It has a large lagoon in the centre, which was well filled with fish of a variety of species; among these were some fine mullet. There is no fresh water on the island, and neither pandanus nor cocoa-nut trees. It has upon it the shrubs which are usually found on the low islands of the Pacific, the most abundant of which was the *tournefortia*. Mr. Peale found here the short-tailed albatross, and procured an egg from its nest. The birds were quite tame, although they were not so numerous as we had before met with on uninhabited islands.

The time of low water took place at one o'clock, and the moon entered its last quarter on the same day: the tide was setting along the shore of the island with much strength to the westward; the rise and fall was three feet. From appearances, the island must be at times submerged, or the sea makes a complete breach over it; the appearance of the coral blocks and of all the vegetation leads to this conclusion, for they have a very decided inclination to the eastward, showing also that the violent winds or rush of the water, when the island is covered, are from the westward. The reef around this island is very small in extent.

The position of Wake's Island was found by my observations of equal altitudes on shore to be in longitude $166^{\circ} 31' 30''$ E., and latitude $19^{\circ} 10' 54''$ N.

By four o'clock, P.M., all the boats had returned on board, when we filled away and proceeded on our course to the westward. Although these coral islands resemble one another very strongly, yet they afforded us some recreation for a few hours, and much satisfaction in obtaining series of observations in magnetism. Our visit to Wake's Island gave us an opportunity of adding to our collections in natural history.

In the evening we steered to pass over the position of Halcyon Island,—longitude $163^{\circ} 30'$ E., latitude $19^{\circ} 13'$ N.; and on the 27th, we passed immediately over its locality, and had run on its supposed parallel fifty miles on each side of it, but nothing was seen of it. We now felt the current to the south-east twelve miles in the twenty-four hours.

Folger's Island next claimed my attention: it is said to lie in longitude $155^{\circ} 19'$ E., latitude $18^{\circ} 21'$ N. This position was passed over, but the inquiry resulted as the others had, in a fruitless search.

I now bore away for Grigan, the northernmost of the inhabited Ladrone or Marian Islands, which we made on the 29th December, at 7 A.M., bearing south-south-west. As we approached these islands, we had experienced a strong current to the northward and westward; and the wind had also veered to the southward and westward.

At midnight, we discovered the island of Assumption, bearing north-east-by-east.

The island of Grigan appears to be about eight miles in width, seen from the north, and has the form of a dome. Its height, by a very unsatisfactory observation, was two thousand three hundred feet. It was my intention to stop and make it a magnetic station; but the weather appeared so

thick as to threaten delay; and this I could ill afford, so I gave up the idea.

There is said to be no other settlement than one small village, on the south-west side of Grigan, where a few individuals dwell, and I understood that they were headed by an American; its shores are almost perpendicular, and it has no coral reefs to form harbours; so that in this respect it is not so much favoured as the southern isles of the same group. The passage between Grigan and Assumption is free from dangers, and I am well satisfied that no shoal exists where Freycinet has laid down the Mangs, for we passed directly over the locality, and saw nothing of the kind. The Mangs were seen in their true position, to the northward of Assumption.

The wind was light and variable. On the 1st of January, 1842, it changed to the south-west; with this change of wind we experienced a fall both of the thermometer and barometer, and excessive dampness; we had some lightning, and at midnight a violent squall with rain burst upon us, attended by a shift of wind to the northward and westward, which afterwards hauled to the northward and eastward. A slight current was felt setting to the eastward.

We now steered for the most eastern position assigned to Copper's Island, and on the 4th, ran over the position in longitude $131^{\circ} 54'$ E., and latitude $20^{\circ} 11'$ N. The Abajos Shoal of Arrow-smith has no existence; its position was passed over in broad daylight.

On the 5th, we felt a current to the west of fifteen miles. The variations of the compass were now to the westward; much phosphorescence in the water; its temperature was 75° . The slight current continued until the 8th, when we made the islands of Sabtang and Batan on the starboard side, and the Richmond Rocks on the larboard, steering a westerly course through the Balingtang Straits. The weather being remarkably fine, we had excellent observations on transit bearing. The longitude of the west point of Sabtang is $121^{\circ} 50' 30''$ E., the latitude is in $20^{\circ} 18'$ N., instead of $20^{\circ} 11'$ N. In the strait we had strong ripples, and occasionally felt the influence of the current, as we passed through them.

We had now left the Pacific Ocean, and I could not but rejoice that we had all the results of our cruise up to this time quite safe.

Sabtang and Batan are of broken surface, shooting up into many remarkable peaks, to the elevation of a thousand feet. These are both inhabited, and afford one or two anchorages.

In the route from Oahu, we had experienced a set to the westward of four hundred miles by current; the greater part of this was felt before reaching the meridian of the Ladrone Islands.

I now stood to the southward along the island of Luzon, to pass just clear of Cape Bolinao. On the 9th, we continued to have very strong winds. A very heavy sea arose, without apparent cause; the progressing motion of the waves in passing the ship was twenty-two miles per hour; their width, as near as it could be ascertained, was one hundred and forty yards.

At sunset of the 10th, we were off Cape Capones, and numerous lights were seen on shore. The breeze failed us after midnight, and in the morning we found that we had drifted some thirty miles

to the leeward of Cape Miravales, having Cape Capones due north, the current having set to the southward. As the breeze was adverse to our entrance into the bay, we continued beating until the afternoon, when the sea-breeze gave us the hope of reaching the anchorage; but it was so feeble, that we made no way, and the night was again passed under sail.

The next day, the 12th, was also passed in working up for the city of Manilla. For this delay I had something to console me in the arrival of the Flying-Fish, which vessel was discovered at 3^h 30^m P.M. beating in. Signal was made for her to join company.

On arriving at the island of Corregidor, we were boarded by a government galley, pulling sixteen oars, and having a large brass twelve-pound piece mounted on the bow. These vessels, I understood, are intended principally to pursue the pirates of Sooloo, who not unfrequently make excursions among the islands, attacking the villages, and carrying off the inhabitants as slaves. They are manned by the natives of this island, who are represented as active and expert sailors, although they are, generally, of small size.

After dark, we anchored about eight miles from the city, in the middle of the broad and beautiful expanse of its bay, which is nearly circular, with an almost uniform depth of water. I learned, whilst at Manilla, that since the settlement of Europeans, the bay has filled up in places very considerably, from the wash of the hills. The lands in the vicinity are high and mountainous, and are clothed with the vegetation of the tropics. After dark, the many lights that were seen in the direction of the city gave the bay an animated appearance, and bespoke our being near a large and active population.

Mr. Knox reported to me that after his separation, on the 30th of November, he stood for the position of Cornwallis Island, as laid down by Arrowsmith in longitude 169° 31' W., latitude 16° 50' N., without seeing any indication of land. Twenty-two miles to the south-by-east of this position, he discovered a reef, which surrounded an extensive lagoon, extending north-east and south-west ten miles, and in the opposite direction five miles. On the north-west side of this reef there are two low islets: the one to the westward was covered with bushes, but no trees; the other was no more than a sand-bank. This reef lies deep. The longitude of the westernmost islet was found to be 169° 45' 36" W., and latitude 16° 48' N. He then bore away for San Pedro of Arrowsmith, in longitude 179° W., and latitude 11° 17' N., and on the 7th of December sailed over it and on its parallel forty miles both east and west, but saw no indications of land whatever.

The Mulgrave Islands were steered for, and two small islands made on the 16th, in the position of longitude 172° 2' 33" E., and latitude 5° 59' 15" N., which corresponds with the chart of Arrowsmith. They are low islets, extending two miles from north to south, and one and a half from east

to west. They are connected by a reef, which surrounds a lagoon. Natives were seen upon them, but no communication was had with them.

Bapham's, a lagoon island, was made on the 17th: it was found to be correctly located; it is also uninhabited.

Hunter's Island was made the same evening, and was examined the next day: it is one and three-quarters of a mile long, north and south, and two-thirds of a mile east and west; it is elevated in the centre, and has no lagoon; its position was ascertained to be in longitude 169° 5' 46" E., and latitude 5° 42' N.

Baring's Island was next passed in 168° 26' 24" E., latitude 5° 34' 42" N. The current experienced off these islands was from fifteen to twenty-five miles easterly.

It having been strongly enjoined upon Mr. Knox not to be behind the time designated for his arrival at Manilla, he found, on his reaching the equator, that but twenty-two days of his time remained: having already experienced light winds and calms, he saw that it would be impossible to range through the Caroline Group and visit Ascension and Strong's Islands: he therefore determined to haul again to the northward, and passed several of the groups in a higher latitude.

On the 26th, he passed over the situation ascribed to Farolip Island, in latitude 10° 45' N., longitude 146° 27' E., without any indications of land. He then sought Feis Island, whose position was crossed on the 27th, but saw no land.

The eastern extremity of M'Kenzie's Group was made on the 29th, in latitude 10° 7' 53" N., longitude 139° 54' 58" E. To the northward and westward of it, a supposed shoal was passed over, but none was found.

M'Kenzie's Group is of greater extent than is represented on the maps. It is composed of a great many islets, with passages between them, some of them into the lagoon, through one of which the schooner entered, with not less than seven fathoms water on the bar. This group is thickly inhabited, and some of the natives boarded the schooner. They resembled the Caroline Islanders, but had their teeth much discoloured, apparently from the use of the betel-nut. From them some fish and cocoa-nuts were procured. They were seen to be in possession of iron utensils, and appeared to have before had communication with vessels.

Mr. Knox now steered for the Straits of Bernardino, and made Cape Espiritu Santo, on the night of the 4th of January. Owing to the want of observations for two days before he was in danger of being shipwrecked. On the 11th, he had passed through the straits, and anchored under Cape St. Jago, whence he got under way, and reached Manilla, as before stated.

I now felt myself secure against farther detention, and hoped to expedite my duties, so as to reach Singapore in the time designated in my instructions.

CHAPTER XXXVI.

MANILLA.

ARRIVAL AT MANILLA—VIEW OF THE CITY—LANDING AT MANILLA—ANCHORAGE—CITY AND ITS BUILDINGS—ITS POPULATION—WANT OF FACILITIES FOR REPAIRS—CITY GOVERNMENT—DISCOVERY AND OCCUPATION OF THE PHILIPPINES—POLICY OF THE CONQUERORS—GEOLOGICAL FEATURES OF THE ISLANDS—PRODUCTIONS AND AGRICULTURE—AGRICULTURAL IMPLEMENTS—USE OF THE BUFFALO—CULTURE OF RICE—MANILLA HEMP—COFFEE—SUGAR—COTTON—MODE OF TAKING PRODUCE TO MARKET—PROFITS OF AGRICULTURE—LABOUR—RAVAGES OF LOCUSTS—INHABITANTS—NATIVE TRIBES—POLICY OF THE GOVERNMENT—CAPABILITIES FOR COMMERCE—MILITARY STRENGTH—INTERNAL DISTURBANCES—VISIT TO THE GOVERNOR—TENURE AND EMOLUMENTS OF HIS OFFICE—ROYAL CIGAR MANUFACTORY—MANUFACTURES—PINA—OCCUPATIONS OF THE HIGHER CLASSES—MARRIAGES—DRIVE ON THE PRADO—THEATRE—TERTULIA—DRESS OF THE NATIVES—COCK-FIGHTING—MARKET—ENVIRONS OF THE CITY—CAMPO SANTO—SYSTEM OF GOVERNMENT—EXPEDITION TO THE INTERIOR—RETURN TO MANILLA—PREPARATIONS FOR SAILING—DEPARTURE FROM MANILLA.

At daylight on the 13th of January, 1842, we were again under way, with a light air, and at nine o'clock reached the roadstead, where we anchored in six fathoms water, with good holding-ground.

A number of vessels were lying in the roads, among which were several Americans loading with hemp. There was also a large English East Indiaman, manned by Lascars, whose noise rendered her more like a floating Bedlam than any thing else to which I can liken it.

The view of the city and country around Manilla partakes both of a Spanish and an Oriental character. The sombre and heavy-looking churches, with their awkward towers; the long lines of batteries mounted with heavy cannon; the massive houses, with ranges of balconies; and the light and airy cottage, elevated on posts, situated in the luxuriant groves of tropical trees,—all excite a desire to become better acquainted with the country.

Manilla is situated on an extensive plain, gradually swelling into distant hills, beyond which, again, mountains rise in the background, to the height of several thousand feet. The latter are apparently clothed with vegetation to their summits. The city is in strong contrast to this luxuriant scenery, bearing evident marks of decay, particularly in the churches, whose steeples and tile roofs have a dilapidated look. The site of the city does not appear to have been well chosen, it having apparently been selected entirely for the convenience of commerce, and the communication that the outlet of the lake affords for the batteaux that transport the produce from the shores of the Laguna de Bay to the city.

There are many arms or branches to this stream, which have been converted into canals; and almost any part of Manilla may now be reached in a banca.

In the afternoon, in company with Captain Hudson, I paid my first visit to Manilla. The anchorage considered safest for large ships is nearly three miles from the shore, but smaller vessels may lie much nearer, and even enter the canal; a facility of which a number of these take advantage, to accomplish any repairs they may have occasion to make.

The canal, however, is generally filled with coasting vessels, batteaux from the lake, and

lighters for the discharge of the vessels lying in the roads. The bay of Manilla is safe, excepting during the change of the monsoons, when it is subject to the typhoons of the China Seas, within whose range it lies. These blow at times with much force, and cause great damage. Foreign vessels have, however, kept this anchorage, and rode out these storms in safety; but native as well as Spanish vessels seek at these times the port of Cavite, about three leagues to the south-west, at the entrance of the bay, which is perfectly secure. Here the government dockyard is situated, and this harbour is consequently the resort of the few gun-boats and galleys that are stationed here.

The entrance to the canal or river Pasig is three hundred feet wide, and is enclosed between two well-constructed piers, which extend for some distance into the bay. On the end of one of these is the lighthouse, and on the other a guard-house. The walls of these piers are about four feet above ordinary high water, and include the natural channel of the river, whose currents sets out with some force, particularly when the ebb is making in the bay.

The suburbs, or Binondo quarter, contain more inhabitants than the city itself, and is the commercial town. They have all the stir and life incident to a large population actively engaged in trade, and in this respect the contrast with the city proper is great.

The city of Manilla is built in the form of a large segment of a circle, having the chord of the segment on the river: the whole is strongly fortified with walls and ditches. The houses are substantially built after the fashion of the mother country. Within the walls are the governor's palace, custom-house, treasury, admiralty, several churches, convents, and charitable institutions, a university, and the barracks for the troops; it also contains some public squares, on one of which is a bronze statue of Charles IV.

The city is properly deemed the court residence of these islands; and all those attached to the government, or who wish to be considered as of the higher circle, reside here; but foreigners are not permitted to do so. The houses in the city are generally of stone, plastered, and white or yellow washed on the outside. They are only two stories high, and in consequence cover a

large space, being built around a patio or courtyard.

The ground-floors are occupied as storehouses, stables, and for porters' lodges. The second story is devoted to the dining-halls and sleeping apartments, kitchens, bath-rooms, &c. The bed-rooms have the windows down to the floor, opening on wide balconies, with blinds or shutters. These blinds are constructed with sliding frames, having small squares of two inches filled in with a thin semi-transparent shell, a species of *placuna*; the fronts of some of the houses have a large number of these small lights, where the females of the family may enjoy themselves unperceived.

After entering the canal, we very soon found ourselves among a motley and strange population. On landing, the attention is drawn to the vast number of small stalls and shops with which the streets are lined on each side, and to the crowds of people passing to and fro, all intent upon their several occupations. The artisans in Manilla are almost wholly Chinese; and all trades are local, so that in each quarter of the Binondo suburb the privilege of exclusive occupancy is claimed by some particular kinds of shops. In passing up the Escolta (which is the longest and main street in this district), the cabinet-makers, seen busily at work in their shops, are first met with; next to these come the tinkers and blacksmiths; then the shoemakers, clothiers, fishmongers, haberdashers, &c. These are flanked by outdoor occupations; and in each quarter are numerous cooks, frying cakes, stewing, &c., in moveable kitchens; while here and there are to be seen betel-nut sellers, either moving about to obtain customers, or taking a stand in some great thoroughfare. The moving throng, composed of carriers, waiters, messengers, &c., pass quietly and without any noise: they are generally seen with the Chinese umbrella, painted of many colours, screening themselves from the sun. The whole population wear slippers, and move along with a slipshod gait.

The Chinese are apparently far more numerous than the Malays, and the two races differ as much in character as in appearance: one is all activity, while the other is disposed to avoid all exertion. They preserve their distinctive character throughout, mixing but very little with each other, and are removed as far as possible in their civilities; the former, from their industry and perseverance, have almost monopolized all the lucrative employments among the lower orders, excepting the selling of fish and betel-nut, and articles manufactured in the provinces.

On shore, we were kindly received by Mr. Moore, who at once made us feel at home. The change of feeling that takes place in a transfer from shipboard in a hot climate, after a long cruise, to spacious and airy apartments, surrounded by every luxury that kind attentions can give, can be scarcely imagined by those who have not experienced it.

As we needed some repairs and supplies, to attend to these was my first occupation. Among the former, we required a heavy piece of blacksmith-work, to prepare which, we were obliged to send our armourers on shore. The only thing they could procure was a place for a forge; but coal, and every thing else, we had to supply from the ship. I mention these things to show that those in want

of repairs must not calculate upon their being done at Manilla with despatch, if they can be accomplished at all.

The city government of Manilla was established on the 24th of June, 1571, and the title under which it is designated is, "The celebrated and forever royal city of Manilla." In 1595, the charter was confirmed by royal authority; and all the prerogatives possessed by other cities in the kingdom were conferred upon it in 1638. The members of the city council, by authority of the king, were constituted a council of advisement with the governor and captain-general. The city magistrates were also placed in rank next the judges; and in 1686 the jurisdiction of the city was extended over a radius of five leagues. In 1818, the number of the council were increased and ordered to assume the title of "excellency." Manilla has been one of the most constantly loyal cities of the Spanish kingdom, and is, in consequence, considered to merit these additional royal favours to its inhabitants.

In 1834, the Royal Tribunal of Commerce was instituted, to supersede the old consulate, which had been established since 1772. The Royal Tribunal of Commerce acts under the new commercial code, and possesses the same privileges of arbitration as the old consulate. It consists of a prior, two consuls, and four deputies, elected by the profession. The three first exercise consular jurisdiction, the other four superintend the encouragement of commerce. The "Junta de Comercio" (chamber of commerce) was formed in 1835. This junta consists of the Tribunal of Commerce, with four merchants, who are selected by the government, two of whom are removed annually. The prior of the Tribunal presides at the Junta, whose meetings are required to be held twice a month, or oftener if necessary, and upon days in which the Tribunal is not in session. The two courts being under the same influences, and having the same officers, little benefit is to be derived from their double action, and great complaints are made of the manner in which business is conducted in them.

Of all her foreign possessions, the Philippines have cost Spain the least blood and labour. The honour of their discovery belongs to Magelhaens, whose name is associated with the straits at the southern extremity of the American continent, but which has no memorial in these islands. Now that the glory which he gained by being the first to penetrate from the Atlantic to the Pacific, has been in some measure obliterated by the disuse of those straits by navigators, it would seem due to his memory that some spot among these islands should be set apart to commemorate the name of him who made them known to Europe. This would be but common justice to the discoverer of a region which has been a source of so much honour and profit to the Spanish nation, who opened the vast expanse of the Pacific to the fleets of Europe, and who died fighting to secure the benefits of his enterprise to his king and country.

Magelhaens was killed at the island of Matan, on the 26th of April, 1521; and Duarte, the second in command, who succeeded him, imprudently accepting an invitation from the chief of Febri to a feast, was, with twenty companions, massacred. Of all the Spaniards present, only one escaped.

After these and various other misfortunes, only one vessel of the squadron, the *Victoria*, returned to Spain. Don Juan Sebastian del Cano, her commander, was complimented by his sovereign by a grant for his arms of a globe, with the proud inscription, commemorative of his being the first circumnavigator,

"PRIMUS ME CIRCUMCEDIT."

Two years afterwards, a second expedition was fitted out, under the command of Loaisa, who died after they had passed through the Straits of Magelhaens, when they had been a year on their voyage. The command then fell upon Sebastian, who died in four days after his predecessor. Salazar succeeded to the command, and reached the Ladrone Islands, but shortly after leaving there he died also. They came in sight of Mindanao, but contrary winds obliged them to go to the Moluccas. When arrived at the Portuguese settlements, contentions and jealousies arose, and finally all the expedition was dispersed, and the fate of all but one of the vessels has become doubtful. None but the small tender returned, which, after encountering great difficulties, reached New Spain.

The third expedition was fitted out by Cortes, then viceroy of Mexico, and the command of it given to Sarvedra. This sailed from the port of Silguattanjo, on the 31st of October, 1528, and stopped at the Ladrone Islands, of which it took possession for the crown of Spain. It afterwards went to Mindanao, and then pursued its voyage to Timor, where part of the expedition of Loaisa was found remaining. From Timor they made two attempts to return to New Spain, both of which failed. The climate soon brought on disease, which carried off a great number, and among them Sarvedra. Thus the whole expedition was broken up, and the survivors found their way to the Portuguese settlements.

The fourth expedition was sent from New Spain, when under the government of Don Antonio de Mendoza, for the purpose of establishing a trade with the new islands, and it received orders not to visit the Moluccas. This expedition sailed in 1542, under the command of Villalobos. It reached the Philippine Islands without accident, and Villalobos gave them that name after Philip II., then prince of Asturias. Notwithstanding his positive instructions to the contrary, he was obliged to visit the Moluccas, and met the same treatment from the Portuguese that had been given to all whom they believed had any intention to interfere in their spice trade. The squadron touched at Amboina, where Villalobos died, an event which caused the breaking up of the expedition; and the few Spaniards that remained embarked in the Portuguese vessels to return home.

The fifth and last expedition was ordered by Philip II. to be sent from Mexico, when under the government of Don Luis de Velasco, for the final conquest and settlement of the Philippines. With this expedition was sent Andres Urdaneta, a friar, whose reputation stood very high as a cosmographer: he had belonged to the ill-fated expedition of Loaisa. This was the largest that had yet been fitted out for this purpose, numbering five vessels and about four hundred men. The command of it was intrusted to Segaspi, under whom it sailed from the port of Natividad, on the 21st of

November, 1564, and upon whom was conferred the title of governor and adelantado of the conquered lands, with the fullest powers. On the 13th of February, 1565, he arrived at the island of Tandaya, one of the Philippines: from thence he went to Leyte; there he obtained the son of a powerful chief as a guide, through whom he established peace with several of the native rulers, who thereafter aided the expedition with all the means in their power. At Bohol they built the first church. There he met and made peace with a chief of Luzon, with whom he went to that island.

He now (April, 1565) took possession of all the island in the name of the crown of Spain, and became their first governor. In this conquest, motives different from those which governed them on the American continent, seemed to have influenced the Spaniards. Instead of carrying on a cruel war against the natives, they here pursued the policy of encouraging and fostering their industry. Whether they felt that this policy was necessary for the success of their undertaking, or were influenced by the religious fathers who were with them, is uncertain; but their measures seem to have been dictated by a desire to promote peace and secure the welfare of the inhabitants. There may be another cause for this course of action, namely, the absence of the precious metals, which held out no inducement to those thirsting for inordinate gain. This may have had its weight in exempting the expedition in its outfit from the presence of those avaricious spirits which had accompanied other Spanish expeditions, and been the means of marking their progress with excessive tyranny, bloodshed, and violence. It is evident to one who visits the Philippines that some other power besides the sword has been at work in them; the natives are amalgamated with the Spaniards, and all seem disposed to cultivate the land and foster civilization. None of the feeling that grows out of conquest is to be observed in these islands; the two races are identified now in habits, manners and religion, and their interests are so closely allied that they feel their mutual dependence upon each other.

The establishment of the new constitution in Spain in the year 1825, has had a wonderful effect upon these colonies, whose resources have within the last ten years been developed, and improvements pushed forward with a rapid step. Greater knowledge and more liberal views in the rulers are alone wanting to cause a still more rapid advance in the career of prosperity.

As our visit was to Luzon, we naturally obtained more personal information respecting it than the other islands. We learned that the northern peninsula* was composed of granite and recent volcanic rocks, together with secondary and tertiary deposits, while the southern peninsula is almost wholly volcanic. The northern contains many valuable mines of gold, lead, copper, and iron, besides coal.

So far as our information and observations went, the whole of the Philippine Islands are of similar geological formation. In some of the islands the volcanic rock prevails, while in others coal and the

* It is called so in consequence of the island being nearly divided in the parallel of 14° N., by two bays.

metalliferous deposits predominate. On some of them the coal-beds form part of the cliffs along the shore; on others, copper is found in a chlorite and talcose slate. The latter is more particularly the case with Luzon, and the same formation extends to Mindoro. Much iron occurs on the mountains. Thus, among the Tagala natives, who are yet unsubdued by the Spaniards, and who inhabit these mountains, it is found by them of so pure a quality that it is manufactured into swords and cleavers. These are, occasionally, obtained by the Spaniards in their excursions into the interior against these bands.

The country around Manilla is composed of tufa of a light gray colour, which being soft and easily worked, is employed as the common building material in the city. It contains, sometimes, scoria and pumice, in pieces of various sizes, besides, occasionally, impressions of plants, with petrified woods. These are confined to recent species, and include palms, &c.

This tufa forms one of the remarkable features of the volcanoes of the Philippine Islands, showing a strong contrast between them and those of the Pacific isles, which have ejected little else than lava and scoria.

Few portions of the globe seem to be so much the seat of internal fires, or to exhibit the effects of volcanic action so strongly as the Philippines. During our visit, it was not known that any of the volcanoes were in action; but many of them were smoking, particularly that in the district of Albay, called Isaroc. Its latest eruption was in the year 1839; but this did little damage compared with that of 1814, which covered several villages, and the country for a great distance around, with ashes. This mountain is situated to the south-east of Manilla one hundred and fifty miles, and is said to be a perfect cone, with a crater at its apex.

It does not appear that the islands are much affected by earthquakes, although some have occasionally occurred that have done damage to the churches at Manilla.

The coal which we have spoken of is deemed of value; it has a strong resemblance to the bituminous coal of our own country, possesses a bright lustre, and appears very free from all woody texture when fractured. It is found associated with sandstone, which contains many fossils. Lead and copper are reported as being very abundant; gypsum and limestone occur in some districts. From this, it will be seen that these islands have every thing in the mineral way to constitute them desirable possessions.

With such mineral resources, and a soil capable of producing the most varied vegetation of the tropics, a liberal policy is all that the country lacks. The products of the Philippine Islands consist of sugar, coffee, hemp, indigo, rice, tortoise-shell, hides, ebony, saffron-wood, sulphur, cotton, cordage, silk, pepper, cocoa, wax, and many other articles. In their agricultural operations the people are industrious, although much labour is lost by the use of defective implements. The plough, of very simple construction, has been adopted from the Chinese; it has no coulter, the share is flat, and being turned partly to one side, answers, in a certain degree, the purpose of a mould-board. This rude implement is sufficient for the rich

soils, where the tillage depends chiefly upon the harrow, in constructing which a thorny species of bamboo is used. The harrow is formed of five or six pieces of this material, on which the thorns are left, firmly fastened together. It answers its purpose well, and is seldom out of order. A wrought-iron harrow, that was introduced by the Jesuits, is used for clearing the ground more effectually, and more particularly for the purpose of extirpating a troublesome grass, that is known by the name of cogon (a species of andropogon), of which it is very difficult to rid the fields. The bolo or long-knife, a basket, and hoe, complete the list of implements, and answer all the purposes of our spades, &c.

The buffalo was used until within a few years exclusively in their agricultural operations, and they have lately taken to the use of the ox; but horses are never used. The buffalo, from the slowness of his motions, and his exceeding restlessness under the heat of the climate, is ill adapted to agricultural labour; but the natives are very partial to them, notwithstanding they occasion them much labour and trouble in bathing them during the great heat. This is absolutely necessary, or the animal becomes so fretful as to be unfit for use. If it were not for this, the buffalo would, notwithstanding his slow pace, be most effective in agricultural operations; he requires little food, and that of the coarsest kind; his strength surpasses that of the stoutest ox, and he is admirably adapted for the rice or paddy fields. They are very docile when used by the natives, and even children can manage them; but it is said they have a great antipathy to the whites, and all strangers. The usual mode of guiding them is by a small cord attached to the cartilage of the nose. The yoke rests on the neck before the shoulders, and is of simple construction. To this is attached whatever it may be necessary to draw, either by traces, shafts, or other fastenings. Frequently this animal may be seen with large bundles of bamboo lashed to them on each side. Buffaloes are to be met with on the lake with no more than their noses and eyes out of the water, and are not visible until they are approached within a few feet, when they cause alarm to the passengers by raising their large forms close to the boat. It is said that they resort to the lake to feed on a favourite grass that grows on its bottom in shallow water, and which they dive for. Their flesh is not eaten, except that of the young ones, for it is tough and tasteless. The milk is nutritious, and of a character between that of the goat and cow.

Rice is, perhaps, of their agricultural products, the article upon which the inhabitants of the Philippine Islands most depend for food and profit; of this they have several different varieties, which the natives distinguish by their size and the shape of the grain: the birnambang, lamuyo, malagequit, bontot-cabayo, dumali, quinanda, bolohan, and tangi. The three first are aquatic; the five latter upland varieties. They each have their peculiar uses. The dumali is the early variety; it ripens in three months from planting, from which circumstance it derives its name: it is raised exclusively on the uplands. Although much esteemed, it is not extensively cultivated, as the birds and insects destroy a large part of the crop.

The malagequit is very much prized, and used

for making sweet and fancy dishes ; it becomes exceedingly glutinous, for which reason it is used in making whitewash, which it is said to cause to become of a brilliant white, and to withstand the weather. This variety is not, however, believed to be wholesome. There is also a variety of this last species which is used as food for horses, and supposed to be a remedy and preventive against worms.

The rice grounds or fields are laid out in squares, and surrounded by embankments, to retain the water of the rains or streams. After the rains have fallen in sufficient quantities to saturate the ground, a seed-bed is generally planted in one corner of the field, in which the rice is sown broadcast, about the month of June. The heavy rains take place in August, when the fields are ploughed, and are soon filled with water. The young plants are about this time taken from the seed-bed, their tops and roots trimmed, and then planted in the field by making holes in the ground with the fingers, and placing four or five sprouts in each of them; in this tedious labour the poor women are employed, whilst the males are lounging in their houses or in the shade of the trees.

The harvest for the aquatic rice begins in December. It is reaped with small sickles, peculiar to the country, called *yatap*; to the back of these a small stick is fastened, by which they are held, and the stalk is forced upon it and cut. The spikes of rice are cut with this implement, one by one. In this operation, men, women, and children all take part.

The upland rice requires much more care and labour in its cultivation. The land must be ploughed three or four times, and all the turf and lumps well broken up by the harrow.

During its growth it requires to be weeded two or three times, to keep the weeds from choking the crop. The seed is sown broadcast in May. This kind of rice is harvested in November, and to collect the crop is still more tedious than in the other case, for it is always gathered earlier, and never reaped, in consequence of the grain not adhering to the ear. If it were gathered in any other way, the loss by transportation on the backs of buffaloes and horses, without any covering to the sheaf, would be so great as to dissipate a great portion of the crop.

It appears almost incredible that any people can remain in ignorance of a way of preventing so extravagant and wasteful a mode of harvesting. The government has been requested to prohibit it on account of the great expense it gives rise to; but whether any steps have ever been taken in the matter, I did not learn. It is said that not unfrequently a third part of the crop is lost, in consequence of the scarcity of labourers; while those who are disengaged will refuse to work, unless they receive one-third, and even one-half of the crop, to be delivered free of expense at their houses. This the planters are often obliged to give, or lose the whole crop. Nay, unless the harvest is a good one, reapers are very unwilling to engage to take it even on these terms, and the entire crop is lost. The labourers, during the time of harvest, are supported by the planter, who is during that time exposed to great vexation, if not losses. The reapers are for the most part composed of the idle and vicious part of the population, who go abroad over

the country to engage themselves in this employment, which affords a livelihood to the poorer classes; for the different periods at which the varieties of rice are planted and harvested, gives them work during a large portion of the year.

After the rice is harvested, there are different modes of treating it. Some of the proprietors take it home, where it is thrown into heaps, and left until it is desirable to separate it from the straw, when it is trodden out by men and women with their bare feet. For this operation, they usually receive another fifth of the rice.

Others stack it in a wet and green state, which subjects it to heat, from which cause the grain contracts a dark colour, and an unpleasant taste and smell. The natives, however, impute these defects to the wetness of the season.

The crop of both the low and upland rice, is usually from thirty to fifty for one: this is on old land; but on that which is newly cleared, or which has never been cultivated, the yield is far beyond this. In some soils of the latter description, it is said that for a *chupa* (seven cubic inches) planted, the yield has been a *caban*. The former is the two-hundred-and-eighth part of the latter. This is not the only advantage gained in planting rich lands, but the saving of labour is equally great; for all that is required is to make a hole with the fingers, and place three or four grains in it. The upland rice requires but little water, and is never irrigated.

The cultivator in the Philippine Islands is always enabled to secure plenty of manure; for vegetation is so luxuriant that by pulling the weeds and laying them with earth, a good stock is quickly obtained with which to cover his fields. Thus, although the growth is so rank as to cause him labour, yet in this hot climate its decay is equally rapid, which tends to make his labours more successful.

Among the important productions of these islands, I have mentioned hemp, although the article called Manilla hemp must not be understood to be derived from the plant which produces the common hemp (*cannabis*), being obtained from a species of plantain (*musa textilis*), called in the Philippines "*abaca*." This is a native of these islands, and was formerly believed to be found only on Mindanao; but this is not the case, for it is cultivated on the south part of Luzon, and all the islands south of it. It grows on high ground, in rich soil, and is propagated by seeds. It resembles the other plants of the tribe of plantains, but its fruit is much smaller, although edible. The fibre is derived from the stem, and the plant attains the height of fifteen or twenty feet. The usual mode of preparing the hemp is to cut off the stem near the ground, before the time or just when the fruit is ripe. The stem is then eight or ten feet long below the leaves, where it is again cut. The outer coating of the herbaceous stem is then stripped off, until the fibres or cellular parts are seen, when it undergoes the process of rotting, and after being well dried in houses and sheds, is prepared for market by assorting it, a task which is performed by the women and children. That which is intended for cloth is soaked for an hour or two in weak lime-water prepared from sea-shells, again dried, and put up in bundles. From all the districts in which it grows, it is sent to Manilla, which

is the only port whence it can legally be exported. It arrives in large bundles, and is packed there, by means of a screw-press, in compact bales, for shipping, secured by rattan, each weighing two piculs.

The best Manilla hemp ought to be white, dry, and of a long and fine fibre. This is known at Manilla by the name of *lupis*; the second quality they call *bandala*.

The exportation has much increased within the last few years, in consequence of the demand for it in the United States; and the whole crop is now monopolized by the two American houses of Sturges & Co. and T. N. Peale & Co., of Manilla, who buy all of good quality that comes to market. This is divided between the two houses, and the price they pay is from four to five dollars the picul. The entire quantity raised in 1840 was eighty-three thousand seven hundred and ninety piculs; in 1841, eighty-seven thousand.

The quantity exported to the United States in 1840, was sixty-eight thousand two hundred and eighty piculs, and in 1841, only sixty-two thousand seven hundred piculs; its value in Manilla is about three hundred thousand dollars. Twenty thousand piculs go to Europe. There are no duties on its exportation.

That which is brought to the United States is principally manufactured in or near Boston, and is the cordage known as "white rope." The cordage manufactured at Manilla is, however, very superior to the rope made with us, although the hemp is of the inferior kind. A large quantity is also manufactured into mats.

In the opinion of our botanist, it is not probable that the plant could be introduced with success into our country, for in the Philippines it is not found north of latitude 14° N.

The coffee-plant is well adapted to these islands. A few plants were introduced into the gardens of Manilla, about fifty years ago, since which time it has been spread all over the island, as is supposed by the civet-cats, which, after swallowing the seeds, carry them to a distance before they are voided.

The coffee of commerce is obtained here from the wild plant, and is of an excellent quality. Upwards of three thousand five hundred piculs are now exported, of which one-sixth goes to the United States.

The sugar-cane thrives well here. It is planted after the French fashion, by sticking the piece diagonally into the ground. Some, finding the cane has suffered in times of drought, have adopted other modes. It comes to perfection in a year, and they seldom have two crops from the same piece of land, unless the season is very favourable.

There are many kinds of cane cultivated, but that grown in the valley of Pampanga is thought to be the best. It is a small red variety, from four to five feet high, and not thicker than the thumb. The manufacture of the sugar is rudely conducted; and the whole business, I was told, was in the hands of a few capitalists, who, by making advances, secure the whole crop from those who are employed to bring it to market. It is generally brought in moulds, of the usual conical shape, called *pilones*, which are delivered to the purchaser from November to June, and contain each

about one hundred and fifty pounds. On their receipt, they are placed in large storehouses, where the familiar operation of claying is performed. The estimate for the quantity of sugar from these *pilones* after this process is about one hundred pounds; it depends upon the care taken in the process.

Of cotton they raise a considerable quantity, which is of a fine quality, and principally of the yellow nankeen. In the province of Ylocos it is cultivated most extensively. The mode of cleaning it of its seed is very rude, by means of a hand-mill, and the expense of cleaning a picul (one hundred and forty pounds) is from five to seven dollars. There have, as far as I have understood, been no endeavours to introduce any cotton-gins from our country.

It will be merely necessary to give the prices at which labourers are paid, to show how low the compensation is, in comparison with those in our own country. In the vicinity of Manilla, twelve and a half cents per day is the usual wages; this in the provinces falls to six and nine cents. A man with two buffaloes is paid about thirty cents. The amount of labour performed by the latter in a day would be the ploughing of a soane, about two-tenths of an acre. The most profitable way of employing labourers is by the task, when, it is said, the natives work well, and are industrious.

The manner in which the sugar and other produce is brought to market at Manilla is peculiar, and deserves to be mentioned. In some of the villages, the chief men unite to build a vessel, generally a pirogue, in which they embark their produce, under the conduct of a few persons, who go to navigate it, and dispose of the cargo. In due time they make their voyage, and when the accounts are settled, the returns are distributed to each according to his share. Festivities are then held, the saints thanked for their kindness, and blessings invoked for another year. After this is over, the vessel is taken carefully to pieces, and distributed among the owners, to be preserved for the next season.

The profits in the crops, according to estimates, vary from sixty to one hundred per cent.; but it was thought, as a general average, that this was, notwithstanding the great productiveness of the soil, far beyond the usual profits accruing from agricultural operations. In some provinces this estimate would hold good, and probably be exceeded.

Indigo would probably be a lucrative crop, for that raised here is said to be of a quality equal to the best, and the crop is not subject to so many uncertainties as in India: the capital and attention required in vats, &c., prevent it from being raised in any quantities. Among the productions, the bamboo and rattan ought to claim a particular notice from their great utility: they enter into almost every thing. Of the former their houses are built, including frames, floors, sides, and roof; fences are made of the same material, as well as every article of general household use, including baskets for oil and water. The rattan is a general substitute for ropes of all descriptions, and the two combined are used in constructing rafts for crossing ferries.

I have thus given a general outline of the capabilities of this country for agricultural operations,

in some of the most important articles of commerce; by which it will be seen that the Philippine Islands are one of the most favoured parts of the globe.

The crops frequently suffer from the ravages of the locusts, which sweep all before them. Fortunately for the poorer classes, their attacks take place after the rice has been harvested; but the cane is sometimes entirely cut off. The authorities of Manilla, in the vain hope of stopping their devastations, employ persons to gather them and throw them into the sea. I understood on one occasion they had spent eighty thousand dollars in this way, but all to little purpose. It is said that the crops rarely suffer from droughts, but on the contrary the rains are thought to fall too often, and to flood the rice fields; these, however, yield a novel crop, and are very advantageous to the poor, viz.: a great quantity of fish, which are called *dalag*, and are a species of blunnius; they are so plentiful, that they are caught with baskets: these fish weigh from a half to two pounds, and some are said to be eighteen inches long; but this is not all; they are said, after a deep inundation, to be found even in the vaults of churches.

The Philippines are divided into thirty-one provinces, sixteen of which are on the island of Luzon, and the remainder comprise the other islands of the group and the *Ladrones*.

The population of the whole group is above three millions, including all tribes of natives, mestizoes, and whites. The latter-named class are but few in number, not exceeding three thousand. The mestizoes were supposed to be about fifteen or twenty thousand; they are distinguished as Spanish and Indian mestizoes. The Chinese have of late years increased to a large number, and it is said that there are forty thousand of them in and around Manilla alone. One-half of the whole population belongs to Luzon. The island next to it in the number of inhabitants is Panay, which contains about three hundred and thirty thousand. Then come Zebu, Mindanao, Leyte, Samar, and Negros, varying from the above numbers down to fifty thousand. The population is increasing, and it is thought that it doubles itself in seventy years. This rate of increase appears probable, from a comparison of the present population with the estimate made at the beginning of the present century, which shows a growth in the forty years of about one million four hundred thousand.

The native population is composed of a number of distinct tribes, the principal of which in Luzon are Pangarihan, Ylocos, Cagayan, Tagala, and Pampangan.

The *Iroques*, who dwell in the mountains, are the only natives who have not been subjected by the Spaniards. The other tribes have become identified with their rulers in religion, and it is thought that by this circumstance alone has Spain been able to maintain the ascendancy with so small a number, over such a numerous, intelligent, and energetic race as they are represented to be. This is, however, more easily accounted for, from the Spaniards fostering and keeping alive the jealousy and hatred that existed at the time of the discovery between the different tribes.

It seems almost incredible that Spain should have so long persisted in the policy of allowing no more than one galleon to pass annually between her colo-

nies, and equally so that the nations of Europe should have been so long deceived in regard to the riches and wealth that Spain was monopolizing in the Philippines. The capture of Manilla, in 1762, by the English, first gave a clear idea of the value of this remote and little-known appendage of the empire.

The Philippines, considered in their capacity for commerce, are certainly among the most favoured portions of the globe, and there is but one circumstance that tends in the least degree to lessen their apparent advantage; this is the prevalence of typhoons in the China seas, which are occasionally felt with force to the north of latitude 10° N. South of that parallel, they have never been known to prevail, and seldom so far; but from their unfailling occurrence yearly in some part of the China seas, they are looked for with more or less dread, and cause each season a temporary interruption in all the trade that passes along the coast of these islands.

The army is now composed entirely of native troops, who number about six thousand men, and the regiments are never suffered to serve in the provinces in which they are recruited, but those from the north are sent to the south, and vice versa. There they are employed to keep up a continual watch on each other; and, speaking different dialects, they never become identified.

They are, indeed, never allowed to remain long enough in one region, to imbibe any feelings in unison with those of its inhabitants. The hostility is so great among the regiments, that mutinies have occurred, and contests arisen which have produced even bloodshed, which it was entirely out of the power of the officers to prevent. In cases of this kind, summary punishment is resorted to.

Although the Spaniards, as far as is known abroad, live in peace and quiet, this is far from being the case; for rebellion and revolts among the troops and tribes are not unfrequent in the provinces. During the time of our visit one of these took place, but it was impossible to learn any thing concerning it that could be relied upon, for all conversation respecting such occurrences is interdicted by the government. The difficulty to which I refer was said to have originated from the preaching of a fanatic priest, who inflamed them to such a degree that they overthrew the troops and became temporarily masters of the country. Prompt measures were immediately taken, and orders issued to give the rebels no quarter; the regiments most hostile to those engaged in the revolt were ordered to the spot; they spared no one; the priest and his companions were taken, put to death, and according to report, in a manner so cruel as to be a disgrace to the records of the nineteenth century. Although I should hope the accounts I heard of these transactions were incorrect, yet the detestation these acts were held in, would give some colour to the statements.

The few gazettes that are published at Manilla are entirely under the control of the government; and a resident of that city must make up his mind to remain in ignorance of the things that are passing around him, or believe just what the authorities will allow to be told, whether truth or falsehood. The government of the Philippines is emphatically an iron rule: how long it can continue so, is doubtful.

One of my first duties was to make an official call upon his Excellency Don Marcelino Oroa, who is the sixty-first governor of the Philippine Islands. According to the established etiquette, Mr. Moore, the vice-consul, announced our desire to do so, and requested to be informed of the time when we would be received. This was accordingly named, and at the appointed hour we proceeded to the palace in the city proper. On our arrival, we were announced and led up a flight of steps, ample and spacious, but by no means of such splendour as would indicate the residence of vice-royalty. The suite of rooms into which we were ushered were so dark that it was difficult to see. I made out, however, that they were panelled, and by no means richly furnished. His excellency entered from a side-door, and led us through two or three apartments into his private audience-room, an apartment not quite so dark as those we had come from: our being conducted to this, I was told afterwards, was to be considered an especial mark of respect to my country. His reception of us was friendly. The governor has much more the appearance of an Irishman than of a Spaniard, being tall, portly, of a florid complexion. He is apparently more than sixty years of age. He was dressed in a full suit of black, with a star on his breast.

Mr. Moore acted as interpreter, and the governor readily acceded to my request to be allowed to send a party into the interior for a few days; a permission which I almost despaired of receiving, for I knew that he had refused a like application some few months before. The refusal, however, I think was in part owing to the character of the applicants, and the doubtful object they had in view. I impute the permission we received to the influence of our consul, together with Mr. Sturges, whose agreeable manners, conciliatory tone, and high standing with the authorities, will, I am satisfied, insure us at all times every reasonable advantage or facility.

The term of the governor in office is three years, and the present incumbent was installed in 1841. This length of time is thought to be sufficient for any one of them to make a fortune. The office is held by the appointment of the ministry in Spain, and with it are connected perquisites that are shared, it is said, by those who confer them.

During our stay at Manilla, our time was occupied in seeing sights, shopping, riding, and amusing ourselves with gazing on the throng incessantly passing through the Escolta of the Binondo suburb, or more properly, the commercial town of Manilla.

Among the lions of the place, the great royal cigar manufactories claim especial notice from their extent and the many persons employed. There are two of these establishments, one situated in the Binondo quarter, and the other on the great square or Prado; in the former, which was visited by us, there are two buildings of two stories high, besides several storehouses, enclosed by a wall, with two large gateways, at which sentinels are always posted. The principal workshop is in the second story, which is divided into six apartments, in which eight thousand females are employed. Throughout the whole extent, tables are arranged, about sixteen inches high, ten feet long and three feet wide, at each of which fifteen women are seated, having small piles of tobacco before them.

The tables are set crosswise from the wall, leaving a space in the middle of the room free. The labour of a female produces about two hundred cigars a day; and the working hours are from 6 A.M. till 6 P.M., with a recess of two hours, from eleven till one o'clock. The whole establishment is kept very neat and clean, and every thing appears to be carried on in the most systematic and workmanlike manner. Among such numbers, it has been found necessary to institute a search on their leaving the establishment to prevent embezzlement, and this is regularly made twice a day, without distinction of sex. It is a strange sight to witness the ingress and egress of these hordes of females; and probably the world cannot elsewhere exhibit so large a number of ugly women. Their ages vary from fifteen to forty-five. The sum paid them for wages is very trifling. The whole number of persons employed in the manufactories is about fifteen thousand; this includes the officers, clerks, overseers, &c.

As nearly as I could ascertain, the revenue derived from these establishments is half a million of dollars.

The natives of the Philippines are industrious. They manufacture an amount of goods sufficient to supply their own wants, particularly from Panay and Ylocos. These for the most part consist of cotton and silk, and a peculiar article called pina. The latter is manufactured from a species of bromelia (pine-apple), and comes principally from the island of Panay. The finest kinds of pina are exceedingly beautiful, and surpass any other material in its evenness and beauty of texture. Its colour is yellowish, and the embroidery is fully equal to the material. It is much sought after by all strangers, and considered as one of the curiosities of this group. Various reports have been stated of the mode of its manufacture, and among others that it was woven under water, which I found, upon inquiry, to be quite erroneous. The web of the pina is so fine, that they are obliged to prevent all currents of air from passing through the rooms where it is manufactured, for which purpose there are gauze screens in the windows. After the article is brought to Manilla, it is then embroidered by girls; this last operation adds greatly to its value.

This manufactory had work engaged for nine months or a year in advance. The fabric is extremely expensive, and none but the wealthy can afford it. It is also much sought after by foreigners. Even orders for Queen Victoria and many of the English nobility were then in hand; at least I so heard at Manilla. Those who are actually present have, notwithstanding, the privilege of selecting what they wish to purchase; for, with the inhabitants here, as elsewhere, ready money has too much attraction for them to forego the temptation.

Time in Manilla seems to hang heavily on the hands of some of its inhabitants; their amusements are few, and the climate ill adapted to exertion. The gentlemen of the higher classes pass their morning in the transaction of a little public business, lounging about and smoking. In the afternoon, they sleep, and ride on the Prado; and in the evening, visit their friends, or attend a tertulia. The ladies are to be pitied; for they pass three-fourths of their time in dishabille, with their maids around them, sleeping, dressing, lolling, and

combing their hair. In this way the whole morning is lounged away : they neither read, write, nor work. In dress they generally imitate the Europeans, except that they seldom wear stockings, and go with their arms bare. In the afternoon they ride on the Prado in state, and in the evening accompany their husbands. Chocolate is taken early in the morning, breakfast at eleven, and dinner and supper are included in one meal.

Mothers provide for the marriage of their daughters ; and I was told that such a thing as a gentleman proposing to any one but the mother, or a young lady engaging herself, is unknown and unheard of. The negotiation is all carried forward by the mother, and the daughter is given to any suitor she may deem a desirable match. The young ladies are said to be equally disinclined to a choice themselves, and if proposals were made to them, the suitor would be at once referred to the mother. Among the lower orders it is no uncommon thing for the parties to be living without the ceremony of marriage, until they have a family ; and no odium whatever is attached to such a connexion. They are looked upon as man and wife, though they do not live together ; and they rarely fail to solemnize their union when they have accumulated sufficient property to procure the requisite articles for housekeeping.

Our afternoons were spent in drives on the Prado, where all the fashion and rank of Manilla are to be met, and where it is exceedingly agreeable to partake of the fresh and pure air after a heated day in the city. The extreme end of the Prado lies along the shore of the bay of Manilla, having the roadstead and ships on one side, and the city proper with its fortifications and moats on the other. This drive usually lasts for an hour, and all sorts of vehicles are shown off, from the governor's coach and six, surrounded by his lancers, to the sorry chaise and limping nag. The carriage most used is a four-wheeled *biloché*, with a gig top, quite low, and drawn by two horses, on one of which is a postilion ; these vehicles are exceedingly comfortable for two persons. The horses are small, but spirited, and are said to be able to undergo great fatigue, although their appearance does not promise it. This drive is enlivened by the music of the different regiments, who are at this time to be seen manœuvring on the Prado. The soldiers have a very neat and clean appearance ; great attention is paid to them, and the whole are well appointed. The force stationed in Manilla is six thousand, and the army in the Philippines amounts to twenty thousand men. The officers are all Spaniards, generally the relations and friends of those in the administration of the government. The pay of the soldiers is four dollars a month, and a ration, which is equal to six cents a day. As troops, I was told they acquitted themselves well. The Prado is laid out in many avenues, leading in various directions to the suburbs, and these are planted with wild almond trees, which afford a pleasant shade. It is well kept, and creditable to the city.

In passing the crowds of carriages very little display of female beauty is observed, and although well-dressed above, one cannot but revert to their wearing no stockings beneath.

On the Prado is a small theatre, but so inferior that the building scarce deserves the name: the

acting was equally bad. This amusement meets with little encouragement in Manilla, and I was told, was discontinued by the governor.

I had the pleasure during our stay of attending a tertulia in the city. The company was not a large one, comprising some thirty or forty ladies and about sixty gentlemen. It resembled those of the mother country. Dancing was introduced at an early hour, and continued till a few minutes before eleven o'clock, at which time the gates of the city are always shut. It was amusing to see the sudden breaking up of the party, most of the guests residing out of the city. The calling for carriages, shawls, hats, &c., produced for a few minutes great confusion, every one being desirous of getting off at the earliest moment possible, for fear of being too late. This regulation, by which the gates are closed at so early an hour, does not appear necessary, and only serves to interrupt the communication between the foreign and Spanish society, as the former is obliged, as before observed, to live outside of the city proper. This want of free intercourse is to be regretted, as it prevents that kind of friendship by which many of their jealousies and prejudices might be removed.

The society at this tertulia was easy, and so far as the enjoyment of dancing went, pleasant ; but there was no conversation. The refreshments consisted of a few dulces, lemonade, and strong drinks in an ante-room. The house appeared very spacious and well adapted for entertainments, but only one of the rooms was well lighted. From the novelty of the scene, and the attentions of the gentleman of the house, we passed a pleasant evening.

The natives and mestizoes attracted much of my attention at Manilla. Their dress is peculiar : over a pair of striped trousers of various colours, the men usually wear a fine grass-cloth shirt, a large straw hat, and around the head or neck a many-coloured silk handkerchief. They often wear slippers as well as shoes. The Chinese dress, as they have done for centuries, in loose white shirts and trousers. One peculiarity of the common men is their passion for cock-fighting ; and they carry these fowls wherever they go, after a peculiar fashion under their arm.

Cock-fighting is licensed by the government, and great care is taken in the breeding of game fowls, which are very large and heavy birds. They are armed with a curved double-edged gaff. The exhibitions are usually crowded with half-breeds or mestizoes, who are generally more addicted to gambling than either the higher or lower classes of Spaniards. It would not be an unapt designation to call the middling class cock-fighters, for their whole lives seem to be taken up with the breeding and fighting of these birds. On the exit from a cockpit, I was much amused with the mode of giving the returned check, which was done by a stamp on the naked arm, and precludes the possibility of its transfer to another person. The dress of the lower order of females is somewhat civilized, yet it bore so strong a resemblance to that of the Polynesians as to recall the latter to our recollection. A long piece of coloured cotton is wound round the body, like the *pareu*, and tucked in at the side : this covers the nether limbs ; and a jacket fitting close to the body is worn, without a shirt. In some, this jacket is ornamented with work around the neck ; it has no collar, and in many

cases no sleeves, and over this a richly embroidered cape. The feet are covered with slippers, with wooden soles, which are kept on by the little toe, only four toes entering the slipper, and the little one being on the outside. The effect of both costumes is picturesque.

The market is a never-failing place of amusement to a foreigner, for there a crowd of the common people is always to be seen, and their mode of conducting business may be observed. The canals here afford great facilities for bringing vegetables and produce to market in a fresh state. The vegetables are chiefly brought from the shores of the Laguna de Bay, through the river Pasig. The meat appeared inferior, and as in all Spanish places the art of butchering is not understood. The poultry, however, surpasses that of any other place I have seen, particularly in ducks, the breeding of which is pursued to a great extent. Establishments for breeding these birds are here carried on in a systematic manner, and are a great curiosity. They consist of many small enclosures, each about twenty feet by forty or fifty, made of bamboo, which are placed on the bank of the river, and partly covered with water. In one corner of the enclosure is a small house, where the eggs are hatched by artificial heat, produced by rice-chaff in a state of fermentation. It is not uncommon to see six or eight hundred ducklings all of the same age. There are several hundreds of these enclosures, and the number of ducks of all ages may be computed at millions. The manner in which they are schooled to take exercise, and to go in and out of the water, and to return to their house, almost exceeds belief. The keepers or tenders are of the Tagala tribe, who live near the enclosures, and have them at all times under their eye. The old birds are not suffered to approach the young, and all of one age are kept together. They are fed upon rice and a small species of shell-fish that is found in the river, and is peculiar to it. From the extent of these establishments we inferred that ducks were the favourite article of food at Manilla, and the consumption of them must be immense. The markets are well supplied with chickens, pigeons, young partridges, which are brought in alive, and turkeys. Among strange articles that we saw for sale, were cakes of coagulated blood. The markets are well stocked with a variety of fish, taken both in the Laguna and bay of Manilla, affording a supply of both the fresh and salt-water species, and many smaller kinds that are dried and smoked. Vegetables are in great plenty, and consist of pumpkins, lettuce, onions, radishes, very long squashes, &c.; of fruits, they have melons, chicos, durians, marbolas, and oranges.

The country around Manilla, though no more than an extended plain for some miles, is one of great interest and beauty, and affords many agreeable rides on the roads to Santa Anna and Maraquino. Most of the country-seats are situated on the river Pasig; they may indeed be called palaces, from their extent and appearance. They are built upon a grand scale, and after the Italian style, with terraces, supported by strong abutments, decked with vases of plants. The grounds are ornamented with the luxuriant, lofty, and graceful trees of the tropics; these are tolerably well kept. Here and there fine large stone churches, with their towers and steeples, are to be seen, the whole

giving the impression of a wealthy nobility, and a happy and flourishing peasantry.

In one of our rides we made a visit to the Campo Santo or cemetery, about four miles from Manilla. It is small, but has many handsome trees about it; among them was an agati, full of large white flowers, showing most conspicuously. The whole place is as unlike a depository of the dead as it well can be. Its form is circular, having a small chapel, in the form of a rotunda, directly opposite the gate, or entrance. The walls are about twenty feet high, with three tiers of niches, in which the bodies are enclosed with quicklime. Here they are allowed to remain for three years, or until such time as the niches may be required for further use. Niches may be purchased, however, and permanently closed up; but in the whole cemetery there were but five thus secured. This would seem to indicate an indifference on the part of the living, for their departed relatives or friends; at least such was my impression at the time. The centre of the enclosure is laid out as a flower-garden and shrubbery, and all the buildings are washed a deep buff-colour, with white cornices; these colours, when contrasted with the green foliage, give an effect that is not unpleasing. In the chapel are two tombs, the one for the bishop, and the other for the governor. The former, I believe, is occupied, and will continue to be so, until another shall follow him; but the latter is empty, for since the erection of the cemetery, none of the governors have died. In the rear of the chapel is another small cemetery, called Los Angeles; and, further behind, the Osero. The former is similar to the one in front, but smaller, and appropriated exclusively to children; the latter is an open space, where the bones of all those who have been removed from the niches, after three years, are cast out, and now lie in a confused heap, with portions of flesh and hair adhering to them. No person is allowed to be received here for interment, until the fees are first paid to the priest, however respectable the parties may be; and all those who pay the fees, and are of the true faith, can be interred. I was told of a corpse of a very respectable person being refused admittance, for the want of the priest's pass, to show that the claim had been satisfied, and the coffin stopped in the road until it was obtained. We ourselves witnessed a similar refusal. A servant entered with a dead child, borne on a tray, which he presented to the sacristan to have interred; the latter asked him for the pass, which not being produced, he was dismissed, nor was he suffered to leave his burden until this requisite could be procured from the priest, who lived opposite. The price of interment was three dollars, but whether this included the purchase of the niche, or its rent for three years only, I did not learn.

The government of the Philippines is in the hands of a governor-general, who has the titles of viceroy, commander-in-chief, sub-delegate, judge of the revenue from the post-office, commander of the troops, captain-general, and commander of the naval forces. His duties embrace every thing that relates to the security and defence of the country. As advisers, he has a council called the Audiencia.

The islands are divided into provinces, each of which has a military officer with the title of governor, appointed by the governor-general. They act as chief magistrates, have jurisdiction over all dis-

putes of minor importance, have the command of the troops in time of war, and are collectors of the royal revenues, for the security of which they give bonds, which must be approved of by the comptroller-general of the treasury. The province of Cavite is alone exempt from this rule, and the collection of tribute is there confided to a police magistrate.

Each province is again subdivided into pueblos, containing a greater or less number of inhabitants, each of which has again its ruler, called a *gobernadorcillo*, who has in like manner other officers under him to act as police magistrates. The number of the latter are very great, each of them having his appropriate duties. These consist in the supervision of the grain fields, cocoa-nut groves, betel-nut plantations, and in the preservation of the general order and peace of the town. So numerous are these petty officers, that there is scarcely a family of any consequence, that has not a member who holds some kind of office under government. This policy, in case of disturbances, at once unites a large and influential body on the side of the government, that is maintained at little expense. The *gobernadorcillo* exercises the municipal authority, and is especially charged to aid the parish priest in every thing appertaining to religious observances, &c.

As soon as we could procure the necessary passports, which were obligingly furnished by the governor to "Don Russel Sturges y quatro Anglo Americanos," our party left Manilla for a short jaunt to the mountains. It was considered as a mark of great favour on the part of his excellency to grant this indulgence, particularly as he had a few months prior denied it to a party of French officers. I was told that he preferred to make it a domestic concern, by issuing the passport in the name of a resident, in order that compliance in this case might not give umbrage to the French. It was generally believed that the cause of the refusal in the former instance was the imprudent manner in which the French officers went about taking plans and sketches, at the corners of streets, &c., which in the minds of an unenlightened and ignorant colonial government, of course excited suspicion. Nothing can be so ridiculous as this system of passports; for if one was so disposed, a plan, and the most minute information of every thing that concerns the defences of places, can always be obtained at little cost now-a-days; for such is the skill of engineers, that a plan is easily made of places, merely by a sight of them. We were not, however, disposed to question the propriety of the governor's conduct in the former case, and I felt abundantly obliged to him for a permission that would add to our stock of information.

It was deemed at first impossible for the party to divide, as they had but one passport, and some difficulties were anticipated from the number being double that stated in the passport. The party consisted of Messrs. Sturges, Pickering, Eld, Rich, Dana, and Brackenridge. Mr. Sturges, however, saw no difficulty in dividing the party after they had passed beyond the precincts of the city, taking the precaution, at the same time, not to appear together beyond the number designated on the paper.

On the 14th, they left Manilla, and proceeded in

carriages to Santa Anna, on the Pasig, in order to avoid the delay that would ensue if they followed the windings of the river in a banca, and against the current.

At Santa Anna they found their bancas waiting for them, and embarked. Here the scene was rendered animated by numerous boats of all descriptions, from the *parao* to the small canoe of a single log.

There is a large population that live wholly on the water: for the *padrones* of the *paraos* have usually their families with them, which from the great variety of ages and sexes, give a very different and much more bustling appearance to the crowd of boats, than would be the case if they only contained those who are employed to navigate them. At times the *paraos* and *bancas*, of all sizes, together with the *sarabaos* and *pativas* (duck establishments), become jumbled together, and create a confusion and noise such as is seldom met with in any other country.

The *pativas* are under the care of the original inhabitants, to whom exclusively the superintendence of the ducklings seems to be committed. The pens are made of bamboo, and are not over a foot high. The birds were all in admirable order, and made no attempt to escape over the low barrier, although so slight that it was thought by some of our gentlemen it would not have sufficed to confine American ducks, although their wings might have been cut. The mode of giving them exercise was by causing them to run round in a ring. The good understanding existing between the keepers and their charge was striking, particularly when the former were engaged in cleansing the pens, and assisting the current to carry off the impurities. In the course of their sail, it was estimated that hundreds of thousands of ducks of all ages were seen.

The women who were seen were usually engaged in fishing with a hook and line, and were generally standing in the water, or in canoes. The *sarabaos* were here also in use. The run of the fish is generally concentrated by a *chevaux-de-frise* to guide them towards the nets and localities where the fishers place themselves.

At five o'clock they reached the Laguna de Bay, where they took in a new crew, with mast and sail. This is called twenty-five miles from Manilla by the river; the distance in a bird's flight is not over twelve. The whole distance is densely peopled, and well cultivated. The crops consist of indigo, rice, &c., with groves of the betel, palm, cocoa-nut, and quantities of fruit trees.

The shores of the lake are shelving, and afford good situations for placing fish-weirs, which are here established on an extensive scale. These weirs are formed of slips of bamboo, and are to be seen running in every direction to the distance of two or three miles. They may be said to invest entirely the shores of the lake for several miles from its outlet, and without a pilot it would be difficult to find the way through them. At night, when heron and tern were seen roosting on the top of each slat, these weirs presented rather a curious spectacle.

The Laguna de Bay is said to be about ten leagues in length by three in width, and trends in a north-north-west and south-south-east direction.

After dark, the bancas separated. Mr. Sturges, with Dr. Pickering and Mr. Eld, proceeded to visit the mountain of Maijaijai, while Messrs. Rich, Dana, and Brackenridge, went towards the Volcano de Taal. The latter party took the passport, while the former relied upon certain letters of introduction for protection, in case of difficulty.

Mr. Sturges, with his party, directed his course to the east side of the lake, towards a point called Jalujalu, which they reached about three o'clock in the morning, and stopped for the crew to cook some rice, &c. At 8 A.M., they reached Santa Cruz, situated about half a mile up a small streamlet, called Paxanau. At this place they found Don Escudero, to whom they had a letter of introduction, and who holds a civil appointment. They were very kindly received by this gentleman and his brown lady, with their interesting family. He at once ordered horses for them to proceed to the mission of Maijaijai, and entertained them with a sumptuous breakfast.

They were not prepared to set out before noon, until which time they strolled about the town of Santa Cruz, the inhabitants of which are Tagalas. There are only two old Spaniards in the place. The province in which Santa Cruz is situated, contains about five thousand inhabitants, of whom eighteen hundred pay tribute.

The people have the character of being orderly, and govern themselves without the aid of the military. The principal article of culture is the cocoa-nut tree, which is seen in large groves. The trunks of these were notched, as was supposed, for the purpose of climbing them. From the spathe a kind of spirit is manufactured, which is fully as strong as our whiskey.

About noon they left Don Escudero's, and took a road leading to the southward and eastward, through a luxuriant and beautiful country, well cultivated, and ornamented with lofty cocoa-nut trees, betel palms, and banana groves. Several beautiful valleys were passed, with streamlets rushing through them.

Maijaijai is situated about one thousand feet above the Laguna de Bay, but the rise is so gradual that it was almost imperceptible. The country has every where the appearance of being densely peopled; but no more than one village was passed between Santa Cruz and the mission. They had letters to F. Antonio Romana y Aranda, padre of the mission, who received them kindly, and entertained them most hospitably. When he was told of their intention to visit the mountain, he said it was impossible with such weather, pointing to the black clouds that then enveloped its summit; and he endeavoured to persuade the gentlemen to desist from what appeared to him a mad attempt; but finding them resolved to make the trial, he aided in making all the necessary preparations, though he had no belief in their success.

On the morning of the 27th, after mass, Mr. Eld and Dr. Pickering set out, but Mr. Sturges preferred to keep the good padre company until their return. The padre had provided them with guides, horses, twenty natives, and provisions for three days. He had been himself on the same laborious journey, some six months before, and knew its fatigues; although it turned out afterwards that his expedition was performed in fine

weather, and that he had been borne on a litter by natives the whole way.

The first part of the road was wet and miry, and discouraging enough. The soil was exceedingly rich, producing tropical plants in great profusion, in the midst of which were seen the neat bamboo cottages, with their industrious and cleanly-looking inhabitants. When they reached the foot of the mountain, they found it was impossible to ride farther, and were obliged to take to walking, which was, however, less of a hardship than riding the little rats of horses, covered with mud and dirt, which were at first deemed useless; but the manner in which they ascended and maintained themselves on the slippery banks, surpassed any thing they had before witnessed in horseflesh. The first part of the ascent of the mountain was gradual, but over a miry path, which was extremely slippery; and had it not been for the sticks stuck down by the party of the padre in their former ascent, they would have found it extremely difficult to overcome: to make it more disagreeable, it rained all the time.

It took about two hours to reach the steep ascent. The last portion of their route had been through an uninhabited region, with some openings in the woods, affording pasture-grounds to a few small herds of buffalo. In three hours they reached the half-way house, by a very steep and regular ascent. Here the natives insisted upon stopping to cook their breakfast, as they had not yet partaken of any thing through the day. The natives now endeavoured to persuade them it was impracticable to go any farther, or at least to reach the top of the mountain and return before night. Our gentlemen lost their patience at the delay, and after an hour's endurance of it, resolved to set out alone. Six of the natives followed them, and by half-past three they reached the summit, where they found it cold and uncomfortable. The ascent had been difficult, and was principally accomplished by catching hold of shrubs and the roots of trees. The summit is comparatively bare, and not more than fifty feet in width. The side opposite to that by which they mounted was perpendicular, but owing to the thick fog they could not see the depth to which the precipice descended.

The observations with the barometers were speedily taken, which gave the height of Banajoa as six thousand five hundred feet. The trees on the summit were twenty or thirty feet high, and a species of fir was very common. Gaultheria, attached to the trunks of trees, rhododendrons, and polygonums, also abounded. The rocks were so covered with soil that it was difficult to ascertain their character; Dr. Pickering is of opinion, however, that they are not volcanic. The house on the summit afforded them little or no shelter; being a mere shed, open on all sides, they found it untenable, and determined to return as soon as their observations were finished, to the half-way house, which they reached before dark.

The night was passed uncomfortably, and in the morning they made an early start down the mountain to reach the native village at its foot, where they were refreshed with a cup of chocolate, cakes, and some dulces, according to the custom of the country. At ten o'clock they reached the mission, where they were received by the padre and Mr. Sturges. The former was greatly astonished to

hear that they had really been to the summit, and had accomplished in twenty-four hours what he had deemed a labour of three days. He quickly attended to their wants, the first among which was dry clothing; and as their baggage had unfortunately been left at Santa Cruz, the wardrobe of the rotund padre was placed at their disposal. Although the fit was rather uncouth on the spare forms of our gentlemen, yet his clothes served the purpose tolerably well, and were thankfully made use of. During their absence, Mr. Sturges had been much amused with the discipline he had witnessed at the hands of the Church, which here seem to be the only visible ruling power. Two young natives had made complaint to the padre that a certain damsel had entered into vows or engagements to marry both: she was accordingly brought up before the padre, Mr. Sturges being present. The padre first lectured her most seriously upon the enormity of her crime, then inflicted several blows on the palm of her outstretched hand, again renewing the lecture, and finally concluding with another whipping. The girl was pretty, and excited the interest of our friend, who looked on with much desire to interfere, and save the damsel from the corporeal punishment, rendered more aggravated by the dispassionate and cool manner in which it and the lecture were administered. In the conversation which ensued, the padre said he had more cases of the violation of the marriage vow, and of infidelity, than any other class of crimes.

After a hearty breakfast, or rather dinner, and expressing their thanks to the padre, they rode back to Santa Cruz, where they arrived at an early hour, and at 9 P.M. they embarked in their bancas for Manilla.

In the morning they found themselves, after a comfortable night, at Baños. Here they took chocolate with the padre, to whom Mr. Sturges had a letter, who informed them that the other party had left the place the evening before for Manilla.

This party had proceeded to the town of Baia, where they arrived at daylight on the 15th. Baia is quite a pretty place, and well situated; the houses are clean and comfortable, and it possessed a venerable stone church, with towers and bells. On inquiring for the padre, they found that he was absent, and it was in consequence impossible for them to procure horses to proceed to the Volcano de Taal. They therefore concluded to walk to the hot springs at Baños, about five miles distant. Along the road they collected a number of curious plants. Rice is much cultivated, and fields of it extend to some distance on each side of the road. Buffaloes were seen feeding and wallowing in the ditches.

At Baños the hot springs are numerous, the water issuing from the rock over a considerable surface. The quantity of water discharged by them is large, and the whole is collected and conducted to the bathing-houses. The temperature of the water at the mouth of the culvert was 180°.

The old bath-house is a singular-looking place, being built on the hill-side, in the old Spanish style. It is beautifully situated, and overlooks the baths and lake. The baths are of stone, and consist of two large rooms, in each of which is a niche, through which the hot water passes. This build-

ing is now in ruins, the roof and floors having fallen in.

Baños is a small village, but contains a respectable-looking stone church, and two or three houses of the same material. Here the party found a difficulty in getting on, for the alcalde could not speak Spanish, and they were obliged to use an interpreter, in order to communicate with him. Notwithstanding this, he is a magistrate, whose duty it is to administer laws written in that language. Finding they could not succeed even here in procuring guides or horses, they determined to remain and explore Mount Maquiling, the height of which is three thousand four hundred and fifty feet, and in the mean time to send for their bancas.

The next day they set out on their journey to that mountain, and the first part of their path lay over a gentle ascent, through cultivated grounds. Next succeeded an almost perpendicular hill, bare of trees, and overgrown with a tall grass, which it was difficult to pass through.

Such had been the time taken up, that the party found it impossible to reach the summit and return before dark. They therefore began to collect specimens: and after having obtained a full load, they returned late in the afternoon to Baños.

The mountain is composed of trachytic rocks and tufa, which are occasionally seen to break through the rich and deep soil, showing themselves here and there, in the deep valleys which former volcanic action has created, and which have destroyed the regular outline of the cone-shaped mountain. The tufa is generally found to form the gently-sloping plains that surround these mountains, and has in all probability been ejected from them. Small craters, of some two hundred feet in height, are scattered over the plains. The tufa is likewise exposed to view on the shores of the lake; but elsewhere, except on a few bare hills, it is entirely covered with the dense and luxuriant foliage. The tufa is generally of a soft character, crumbling in the fingers, and in it are found coarse and fine fragments of scoria, pumice, &c. The layers are from a few inches to five feet in thickness.

In the country around Baños, there are several volcanic hills, and on the sides of Mount Maquiling are appearances of parasitic cones, similar to those observed at the Hawaiian Islands; but time and the foliage have so disguised them, that it is difficult to determine exactly their true character.

I regretted exceedingly that the party that set out for the Lake de Taal was not able to reach it, as, from the accounts I had, it must be one of the most interesting portions of the country. It lies nearly south-west from Manilla, and occupies an area of about one hundred and twenty square miles. The Volcano de Taal is situated on an island near the centre of it, and is now in action. The cone which rises from its centre is remarkably regular, and consists for the most part of cinders and scoria. It has been found to be nine hundred feet in elevation above the lake. The crater has a diameter of two miles, and its depth is equal to the elevation: the walls of the crater are nearly perpendicular, so much so that the descent cannot be made without the assistance of ropes. At the bottom there are two small cones. Much steam issues from the

many fissures, accompanied by sulphurous acid gas. The waters of the lake are impregnated with sulphur, and there are said to be also large beds of sulphur. In the opinion of those who have visited this spot, the whole lake once formed an immense crater; and this does not appear very improbable, if we are to credit the accounts we received of the many craters on this island that are now filled with water; for instance, in the neighbourhood of San Pablo there are said to be eight or nine.

The hot springs of Baños are numerous, and in their vicinity large quantities of steam are seen to issue from the shore of the lake. There are about a dozen which give out a copious supply of water. The principal one has been enclosed, and made to flow through a stone aqueduct, which discharges a considerable stream. The temperature of the water as it leaves the aqueduct is 178°. The villagers use it for cooking and washing: the signs of the former employment are evident enough from the quantities of feathers from the poultry that have been scalded and plucked preparatory to cooking. The baths are formed by a small circular building six feet in diameter, erected over the point of discharge for the purpose of securing a steam-bath: the temperature of these is 160° and 140°. A change of temperature is said to have occurred in the latter.

The rocks in the vicinity are all tufa, and some of the springs break out close to the cold water of the lake. Near the aqueduct, a stone wall surrounds one of the principal outlets. Two-thirds of the area thus enclosed is occupied by a pond of warm water, and the other third is divided into two stone reservoirs, built for baths. These baths had at one time a high reputation, and were a very fashionable resort for the society of Manilla; but their celebrity gradually diminished, and the whole premises have gone out of repair, and are fast falling to ruin.

On Mount Maquiling, wild buffaloes, hogs, a

small species of deer, and monkeys, are found. Birds are also very numerous, and among them is the horn-bill: the noise made by this bird resembles a loud barking; report speaks of them as an excellent bird for the table. Our gentlemen reached their lodging-place as the night closed in, and the next day again embarked for Manilla, regretting that time would not permit them to make another visit to so interesting a field of research. They found the lake so rough that they were compelled to return, and remain until eight o'clock. This, however, gave our botanists another opportunity of making collections, among which were beautiful specimens of *volkameria splendens*, with elegant scarlet flowers, and a *brugmansia*, which expanded its beautiful silvery flowers after sunset. On the shores a number of birds were feeding, including pelicans, with their huge bills, the diver, with its long-arched neck, herons, gulls, eagles, and snow-white cranes, with ducks and other small aquatic flocks. Towards night these were joined by large bats, that were seen winging their way towards the plantations of fruit. These, with quantities of insects, gave a vivid idea of the wonderful myriads of animated things that are constantly brought into being in these tropical and luxuriant climates.

Sailing all night in a rough sea, they were much incommoded by the water, which was shipped into the banca which kept them constantly bailing out; they reached the river Pasig at daylight, and again passed the duck establishments, and the numerous boats and bancas on their way to the markets of Manilla. Both the parties reached the consul's the same day, highly pleased with their respective jaunts.

On the morning of the 21st of January, we took leave of our friends, and got under way. We then, with a strong northerly wind, and a native pilot on board, made all sail to the south for the Straits of Mindoro.

CHAPTER XXXVII.

SOOLOO.

THE VINCENNES AND FLYING-FISH SAIL FROM MANILLA—ISLAND OF MINDORO—ISLAND OF PANAY—TOWN OF SAN JOSÉ—ISLAND OF MINDANAO—SAMBOANGAN—ISLAND OF SOOLOO—THE VINCENNES ANCHORS IN THE BAY OF SOUNG—HOUSE OF THE DATU OR GOVERNOR—PERSONAL APPEARANCE OF THE DATU—INTERVIEW WITH THE SULTAN—PERSONAL APPEARANCE OF THE SULTAN—THE SULTAN'S SON—BOWIE-KNIFE PISTOL STOLEN—RESTORED—CHARACTER OF THE PEOPLE OF SOOLOO—DRESS OF THE WOMEN—OCCUPATIONS—GOVERNMENT OF THE SOOLOO ARCHIPELAGO—POPULATION OF THE ISLAND—THE VINCENNES SAILS FOR THE STRAITS OF BALABAC—MANGSEE ISLANDS—SURVEYS MADE—ISLAND OF BALAMBANGAN—STRAITS OF BALABAC—STRAITS OF SINGAPORE—REUNION OF THE SQUADRON—CRUISE OF THE PORPOISE AND OREGON.

On the evening of the 21st of January, the Vincennes, with the tender in company, left the bay of Manilla. I then sent for Mr. Knox, who commanded the latter, and gave him directions to keep closely in company with the Vincennes, and at the same time pointed out to him places of rendezvous where the vessels might again meet in case any unavoidable circumstance caused their separation. I was more particular in giving him instructions to avoid losing sight of the Vincennes, as I was

aware that my proposed surveys might be impeded or frustrated altogether, were I deprived of the assistance of the vessel under his command.

On the 22nd, we passed the entrance of the Straits of San Bernadino. It would have been my most direct route to follow these straits until I had passed Mindoro, and it is, I am satisfied, the safest course, unless the winds are fair, for the direct passage. My object, however, was to examine the ground for the benefit of others, and the Apo

Shoal, which lies about mid-channel between Palawan and Mindoro, claimed my first attention. The tender was despatched to survey it, while I proceeded in the Vincennes to examine the more immediate entrance to the Sooloo Sea, off the south-west end of Mindoro.

Calavite Peak is the north point of Mindoro, and our observations made it two thousand feet high. This peak is of the shape of a dome, and appears remarkably regular when seen from its western side. On approaching Mindoro, we, as is usual, under high islands, lost the steady breeze, and the wind became light for the rest of the day. Mindoro is a beautiful island, and is evidently volcanic; it appears as if thrown up in confused masses: it is not much settled, as the more southern islands are preferred to it as a residence.

On the 23rd, we ascertained the elevation of the highest peak of the island by triangulation to be three thousand one hundred and twenty-six feet. The easternmost island of the Palawan Group, Busvagan, was at the time just in sight from the deck, to the south-west.

It had been my intention to anchor at Ambolou Island; but the wind died away before we reached it, and I determined to stand off and on all night.

On the 24th, I began to experience the truth of what Captain Halcon had asserted, namely, that the existing charts were entirely worthless, and I also found that my native pilot was of no more value than they were: he had evidently passed the place before; but whether the size of the vessel, so much greater than any he had sailed in, confused him, or whether it was from his inability to understand and to make himself understood by us, he was of no use whatever, and we had the misfortune of running into shoal water, barely escaping the bottom. These dangers were usually quickly passed, and we soon found ourselves again floating in thirty or forty fathoms water.

We continued beating to windward, in hopes of being joined by the Flying-Fish, and I resolved to finish the survey towards the island of Semarara. We found every thing in a different position from that assigned it by any of the charts with which we were furnished.

Towards evening, I again ran down to the south-west point of the island of Mindoro, and sent a letter on shore to the pueblo, with directions to have it put on board the tender, when she should arrive. We then began to beat round Semarara, in order to pass over towards Panay.

The southern part of Mindoro is much higher than the northern, but appears to be equally rough. It is, however, susceptible of cultivation, and there are many villages along its shores.

Semarara is moderately high, and about fifteen miles in circumference; it is inhabited, and like Mindoro, much wooded. According to the native pilot, its shores are free from shoals. It was not until the next day that we succeeded in reaching Panay. I determined to pass the night off Point Poto, the north end of Panay, as I believed the sea in its neighbourhood to be free of shoals, and wished to resume our running survey early in the morning.

At daylight on the 27th we continued the survey down the coast of Panay, and succeeded in correcting many errors in the existing charts (both English and Spanish). The channel along this

side is from twelve to twenty miles wide, and suitable for beating in; little current is believed to exist; and the tides, as far as our observations went, seem to be regular and of little strength.

The island of Panay is high and broken, particularly on the south end; its shores are thickly settled and well cultivated. Indigo and sugar-cane claim much of the attention of the inhabitants. The Indians are the principal cultivators. They pay to government a capitation tax of seven rials. Its population is estimated at three hundred thousand, which I think is rather short of the actual number.

On all the hills there are telegraphs of rude construction, to give information of the approach of piratical prahus from Sooloo, which formerly were in the habit of making attacks upon the defenceless inhabitants, and carrying them off into slavery. Of late years they have ceased these depredations, for the Spaniards have resorted to a new mode of warfare. Instead of pursuing and punishing the offenders, they now intercept all their supplies, both of necessities and luxuries; and the fear of this has had the effect to deter pirates from their usual attacks.

We remained off San Pedro for the night, in hopes of falling in with the Flying-Fish in the morning.

On the morning of the 28th, the Flying-Fish was discovered plainly in sight. I immediately stood for her, fired a gun and made signal. At seven o'clock, another gun was fired, but the vessel still stood off, and was seen to make sail to the westward without paying any regard whatever to either, and being favoured by a breeze while the Vincennes was becalmed, she stole off and was soon out of sight*.

After breakfast we opened the bay of Antique, on which is situated the town of San José. As this bay apparently offered anchorage for vessels bound up this coast, I determined to survey it; and for this purpose the boats were hoisted out and prepared for surveying. Lieutenant Budd was despatched to visit the pueblo called San José.

On reaching the bay, the boats were sent to different points of it, and when they were in station, the ship fired guns to furnish bases by the sound, and angles were simultaneously measured. The boats made soundings on their return to the ship, and thus completed this duty, so that in an hour or two afterwards the bay was correctly represented on paper. It offers no more than a temporary anchorage for vessels, and unless the shore is closely approached, the water is almost too deep for the purpose.

At San José a Spanish governor resides, who presides over the two pueblos of San Pedro and San José, and does the duty also of alcalde. Lieutenant Budd did not see him, as he was absent, but his lady did the honours. Lieutenant Budd represented the pueblo as cleanly and orderly. About fifteen soldiers were seen, who compose the governor's guard, and more were said to be stationed at San Pedro. A small fort of eight guns commands the roadstead. The beach

* On my arrival at Singapore, this circumstance was investigated by a court of inquiry. The result showed that Mr. Knox had no knowledge of the Vincennes having been seen; for the officer of the watch had not reported to him the fact.

was found to be of fine volcanic sand, composed chiefly of oxide of iron, and comminuted shells; there is here also a narrow shore reef of coral. The plain bordering the sea is covered with a dense growth of cocoa-nut trees. In the fine season the bay is secure, but we were informed that in westerly and south-westerly gales heavy seas set in, and vessels are not able to lie at anchor. Several small vessels were lying in a small river about one and a half mile to the southward of the point on which the fort is situated. The entrance to this river is very narrow and tortuous.

Panay is one of the largest islands of the group. We had an opportunity of measuring the height of some of its western peaks or highlands, none of which exceed three thousand feet. The interior and eastern side have many lofty summits, which are said to reach an altitude of seven thousand five hundred feet; but these, as we passed, were enveloped in clouds, or shut out from view by the nearer highlands. The general features of the island are like those of Luzon and Mindoro. The higher land was bare of trees, and had it not been for the numerous fertile valleys lying between the sharp and rugged spurs, it would have had a sterile appearance.

The bay of Antique is in latitude $10^{\circ} 40' N.$, longitude $121^{\circ} 59' 30'' E.$

It was my intention to wait for two or three days at a convenient anchorage to enable us to make short excursions into the interior; but the vexatious mismanagement of the tender now made it incumbent that I should make every possible use of the time to complete the operations connected with the hydrography of this sea; for I perceived that the duties which I intended should be performed by her, would now devolve upon the boats, and necessarily expose both officers and men to the hazard of contracting disease. I regretted giving up this design, not only on my own account and that of the expedition, but because of the gratification it would have afforded personally to the naturalists.

The town of San José has about thirty bamboo houses, some of which are filled in with clay or mortar, and plastered over, both inside and out. Few of them are more than a single story in height. That of the governor is of the same material, and overtops the rest; it is whitewashed, and has a neat and cleanly appearance. In the vicinity of the town are several beautiful valleys, which run into the mountains from the plain that borders the bay. The landing is on a bamboo bridge, which has been erected over an extensive mud-flat, that is exposed at low water, and prevents any nearer approach of boats. This bridge is about seven hundred feet in length; and a novel plan has been adopted to preserve it from being carried away. The stems of bamboo not being sufficiently large and heavy to maintain the superstructure in the soft mud, a scaffold is constructed just under the top, which is loaded with blocks of large stone, and the outer piles are secured to anchors or rocks, with grass rope. The roadway or top is ten feet wide, covered with split bamboo, woven together, and has rails on each side, to assist the passenger. This is absolutely necessary for safety; and even with this aid, one unaccustomed to it must be possessed of no little bodily strength to pass over this

smooth, slippery, and springy bridge, without accident.

Two pirogues were at anchor in the bay, and on the shore was the frame of a vessel which had evidently been a long while on the stocks, for the weeds and bushes near the keel were six or eight feet high, and a portion of the timbers were decayed. Carts and sleds drawn by buffaloes were in use, and every thing gave it the appearance of a thriving village. Although I have mentioned the presence of soldiers, it was observed on landing that no guard was stationed about or even at the fort; but shortly afterwards a soldier was seen hurrying towards the latter, in the act of dressing himself in his regimentals, and another running by his side, with his cartridge-box and musket. In a little while one was passing up and down on his post, as though he was as permanent there as the fort itself.

After completing these duties, the light airs detained us the remainder of the day under Panay, in sight of the bay. On the 29th, at noon, we had been wafted by it far enough in the offing to obtain the easterly breeze, which soon became strong, with an overcast sky, and carried us rapidly on our course; my time would not permit my heaving-to. We kept on our course for Mindanao during the whole night, and were constantly engaged in sounding, with our patent lead, with from thirty to forty fathoms cast, to prevent our passing over this part of the sea entirely unexamined.

At daylight on the 31st, we had the island of Mindanao before us, but did not reach its western cape until 5 P.M. This island is high and broken, like those to the north of it, but, unlike them, its mountains are covered with forests to their very tops, and there were no distinct cones of minor dimensions, as we had observed on the others. If they do exist, they were hidden by the dense forest.

I had determined to anchor at Caldera, a small port on the south-west side of Mindanao, about ten miles distant from Samboangan, where the governor resides. The latter is a considerable place, but the anchorage in its roadstead is said to be bad, and the currents that run through the Straits of Basilan are represented to be strong. Caldera, on the other hand, has a good, though small anchorage, which is free from the currents of the straits. It is therefore an excellent stopping-place, in case of the tide proving unfavourable. On one of its points stands a small fort, which, on our arrival, hoisted Spanish colours.

At six o'clock we came to anchor at Caldera, in seven fathoms water. There were few indications of inhabitants, except at and near the fort. An officer was despatched to the fort, to report the ship. It was found to be occupied by a few soldiers under the command of a lieutenant.

The fort is about seventy feet square, and is built of large blocks of red coral, which evidently have not been taken from the vicinity of the place, as was stated by the officers of the fort; for, although our parties wandered along the alluvial beach for two or three miles in each direction, no signs of coral were observed. Many fragments of red, gray, and purple basalt and porphyry were met with along the beach; talcose rock and slate, syenite, hornblend, quartz, both compact and slaty, with chalcodony, were found in pieces and large

pebbles. Those who were engaged in dredging reported the bottom as being of coral, in from four to six or eight fathoms; but this was of a different kind from that of which the fort was constructed.

The fort was built in the year 1784, principally for protection against the Sooloo pirates, who were in the habit of visiting the settlements, and carrying off the inhabitants as slaves, to obtain ransom for them. This and others of the same description, were therefore constructed as places of refuge for the inhabitants, as well as to afford protection to vessels.

Depredations are still committed, which render it necessary to keep up a small force. One or two huts which were seen in the neighbourhood of the bay, are built on posts twenty feet from the ground, and into them they ascend by ladders, which are hauled up after the occupants have entered.

These, it is said, are the sleeping-huts, and are so built for the purpose of preventing surprise at night. Before our arrival we had heard that the villages were all so constructed, but a visit to one soon showed that this was untrue. The natives seen at the village were thought to be of a decidedly lighter colour and a somewhat different expression from the Malays. They were found to be very civil, and more polished in manners than our gentlemen expected. On asking for a drink of water, it was brought in a glass tumbler on a china plate. An old woman, to whom they had presented some trifles, took the trouble to meet them in another path on their return, and insisted on their accepting a basket of potatoes. Some of the houses contained several families, and many of them had no other means of entrance than a notched post stuck up to the door.

The forests of Mindanao contain a great variety of trees, some of which are of large size, rising to the height of one hundred and one hundred and fifty feet. Some of their trunks are shaped like buttresses, similar to those before spoken of at Manila, from which they obtained broad slabs for the tops of tables. The trunks were observed to shoot up remarkably straight. Our botanical gentlemen, though pleased with the excursion, were disappointed at not being able to procure specimens from the lofty trees; and the day was less productive in this respect than they had anticipated. Large woody vines were common, which enveloped the trunks of trees in their folds, and ascending to their tops, prevented the collection of the most desirable specimens.

The paths leading to the interior were narrow and much obstructed: one fine stream was crossed. Many buffaloes were observed wallowing in the mire, and the woods swarmed with monkeys and numbers of birds, among them the horn-bills: these kept up a continual chatter, and made a variety of loud noises. The forests here are entirely different from any we had seen elsewhere; and the stories of their being the abode of large boas and poisonous snakes, make the effect still greater on those who visit them for the first time. Our parties, however, saw nothing of these reptiles, nor any thing to warrant a belief that such exist. Yet the officer at the fort related to me many snake stories that seemed to have some foundation; and by inquiries made elsewhere, I learned

that they were at least warranted by some facts, though probably not to the extent that he represented.

Traces of deer and wild hogs were seen, and many birds were obtained, as well as land and sea shells. Among the latter was the *malleus vulgaris*, which is used as food by the natives. The soil on this part of the island is a stiff clay, and the plants it produces are mostly woody; those of an herbaceous character were scarce, and only a few orchideous epiphytes and ferns were seen. Around the dwellings in the villages were a variety of vegetables and fruits, consisting of sugar-cane, sweet-potato, gourds, pumpkins, peppers, rice, water and musk melons, all fine and of large size.

The officer at the fort was a lieutenant of infantry; one of that rank is stationed here for a month, after which he, with the garrison, consisting of three soldiers, are relieved, from Samboangan, where the Spaniards have three companies.

Samboangan is a convict settlement, to which the native rogues, principally thieves, are sent. The Spanish criminals are sent to Spain.

The inhabitants of the island of Mindanao who are under the subjection of Spain, are about ten thousand in number, of whom five or six thousand are at or in the neighbourhood of Samboangan. The original inhabitants, who dwell in the mountains and on the east coast, are said to be quite black, and are represented to be a very cruel and bad set; they have hitherto bid defiance to all attempts to subjugate them. When the Spaniards make excursions into the interior, which is seldom, they always go in large parties on account of the wild beasts, serpents, and hostile natives; nevertheless, the latter frequently attack and drive them back.

The little fort is considered as a sufficient protection for the fishermen and small vessels against the pirates, who inhabit the island of Basilan, which is in sight from Mindanao, and forms the southern side of the straits of the same name. It is said that about seven hundred inhabit it. The name of Moor is given by the Spaniards to all those who profess the Mahomedan religion, and by such all the islands to the west of Mindanao, and known under the name of the Sooloo Archipelago, are inhabited.

The day we spent at Caldera was employed in surveying the bay, and in obtaining observations for its geographical position, and for magnetism. The flood tide sets to the northward and westward, through the straits, and the ebb to the eastward. In the bay we found it to run two miles an hour by the log, but it must be much more rapid in the straits.

At daylight on the 1st of February, we got under way to stand over for the Sangboys, a small island with two sharp hills on it. One and a half mile from the bay we passed over a bank, the least water on which was ten fathoms on a sandy bottom, and on which a vessel might anchor. The wind shortly after failed us, and we drifted with the tide for some hours, in full view of the island of Mindanao, which is bold and picturesque. We had thus a good opportunity of measuring some of its mountain ranges, which we made about three thousand feet high.

In the afternoon, a light breeze came from the

south-west, and before sunset I found that we were again on soundings. As soon as we had a cast of twenty fathoms, I anchored for the night, judging it much better than to be drifting about without any knowledge of the locality and currents to which we were subjected.

On the morning of the 2nd, we got under way to proceed to the westward. As the bottom was unequal, I determined to pass through the broadest channel, although it had the appearance of being the shoalest, and sent two boats ahead to sound. In this way we passed through, continuing our surveying operations, and at the same time made an attempt to dredge; but the ground was too uneven for the latter purpose, and little of value was obtained.

Shortly after passing the Sangboys, we had the island of Sooloo in sight, for which I now steered direct. At sunset we found ourselves within five or six miles of Soung Harbour; but there was not sufficient light to risk the dangers that might be in our course, nor wind enough to command the ship; and having no bottom where we were, I determined again to run out to sea, and anchor on the first bank I should meet. At half-past eight o'clock, we struck sounding in twenty-six fathoms, and anchored.

At daylight we determined our position by angles, and found it to correspond with part of the route we had passed over the day before, and that we were about fifteen miles from the large island of Sooloo. Weighing anchor, we were shortly wafted by the westerly tide and a light air towards that beautiful island, which lay in the midst of its little archipelago; and as we were brought nearer and nearer, we came to the conclusion that in our many wanderings we had seen nothing to be compared to this enchanting spot. It appeared to be well cultivated, with gentle slopes rising here and there into eminences from one to two thousand feet high. One or two of these might be dignified with the name of mountains, and were sufficiently high to arrest the passing clouds; on the afternoon of our arrival we had a singular example in the dissipation of a thunder-storm.

Although much of the island was under cultivation, yet it had all the freshness of a forest region. The many smokes on the hills, buildings of large size, cottages, and cultivated spots, together with the moving crowds on the land, the prahus, canoes, and fishing-boats on the water, gave the whole a civilized appearance. Our own vessel lay, almost without a ripple at her side, on the glassy surface of the sea, carried onwards to our destined anchorage by the flowing tide, and scarce a sound was heard except the splashing of the lead as it sought the bottom. The effect of this was destroyed in part by the knowledge that this beautiful archipelago was the abode of a cruel and barbarous race of pirates. Towards sunset we had nearly reached the bay of Soung, when we were met by the opposing tide, which frustrated all our endeavours to reach it, and I was compelled to anchor, lest we should again be swept to sea.

The next morning at eight o'clock we got under way, and were towed by our boats into the bay of Soung, where we anchored off the town in nine fathoms water. While in the act of doing so, and after our intentions had become too evident to admit of a doubt, the sultan graciously sent

off a message giving us permission to enter his port.

Lieutenant Budd was immediately despatched with the interpreter to call upon the datu mulu or governor, and to learn at what hour we could see the sultan. When the officer reached the town, all were found asleep; and after remaining four hours waiting, the only answer he could get out of the datu mulu was, that he supposed that the sultan would be awake at three o'clock, when he thought I could see him.

At the appointed time, Captain Hudson and myself went on shore to wait upon the sultan. On our approach to the town, we found that a great proportion of it was built over the water on piles, and only connected with the shore by narrow bridges of bamboo. The style of building in Sooloo does not differ materially from that of the Malays. The houses are rather larger, and they surpass the others in filth.

We passed for some distance between the bridges to the landing, and on our way saw several piratical prahus apparently laid up. Twenty of these were counted, of about thirty tons burden, evidently built for sea-vessels, and capable of mounting one or two long guns. We landed at a small streamlet, and walked a short distance to the datu's house, which is of large dimensions and rudely built on piles, which raise it about six feet above the ground, and into which we were invited. The house of the datu contains one room, part of which is screened off to form the apartment of his wife. Nearly in the centre is a raised dais, eight or ten feet square, under which are stowed all his valuables, packed in chests and Chinese trunks. Upon this dais are placed mats for sleeping, with cushions, pillows, &c.; and over it is a sort of canopy, hung around with fine chintz or muslin.

The dais was occupied by the datu, who is, next to the sultan, the greatest man of this island. He at once came from it to receive us, and had chairs provided for us near his sanctum. After we were seated, he again retired to his lounge. The datu is small in person, and emaciated in form, but has a quick eye and an intelligent countenance. He lives, as he told me, with all his goods around him, and they formed a collection such as I could scarcely imagine it possible to bring together in such a place. The interior put me in mind of a barn inhabited by a company of strolling players. On one side were hung up a collection of various kinds of gay dresses, here drums and gongs, there swords, lanterns, spears, muskets, and small cannon; on another side were shields, bucklers, masks, saws, and wheels, with belts, bands, and long robes. The whole was a strange mixture of tragedy and farce; and the group of natives were not far removed in appearance from the supernumeraries that a Turkish tragedy might have brought together in the green-room of a theatre. A set of more cowardly-looking miscreants I never saw. They appeared ready either to trade with us, pick our pockets, or cut our throats, as an opportunity might offer.

The wife's apartment was not remarkable for its comforts, although the datu spoke of it with much consideration, and evidently held his better half in high estimation. He was also proud of his six children, the youngest of whom he brought out in its nurse's arms, and exhibited with much pride

and satisfaction. He particularly drew my attention to its little highly-wrought and splendidly-mounted kris, which was stuck through its girdle, as an emblem of his rank. He was in reality a fine-looking child. The kitchen was behind the house, and occupied but a small space, for they have little in the way of food that requires much preparation. The house of the datu might justly be termed nasty.

We now learned the reason why the sultan could not be seen: it was Friday, the Mahomedan Sabbath, and he had been at the mosque from an early hour. Lieutenant Budd had been detained, because it was not known when he would finish his prayers; and the ceremonies of the day were more important than usual, on account of its peculiar sanctity in their calendar.

Word had been sent off to the ship that the sultan was ready to receive me, but the messenger passed us while on our way to the shore. After we had been seated for a while, the datu asked if we were ready to accompany him to see the sultan; but intimated that no one but Captain Hudson and myself could be permitted to set eyes on him. Being informed that we were, he at once, and in our presence, slipped on his silken trousers, and a new jacket, covered with bell-buttons; put on his slippers, strapped himself round with a long silken net sash, into which he stuck his kris, and, with umbrella in hand, said he was ready. He now led the way out of his house, leaving the motley group behind, and we took the path to the interior of the town, towards the sultan's. The datu and I walked hand in hand, on a roadway about ten feet wide, with a small stream running on each side. Captain Hudson and the interpreter came next, and a guard of six trusty slaves brought up the rear.

When we reached the outskirts of the town, about half a mile from the datu's, we came to the sultan's residence, where he was prepared to receive us in state. His house is constructed in the same manner as that of the datu, but is of larger dimensions, and the piles are rather higher. Instead of steps, we found a ladder, rudely constructed of bamboo, and very crazy. This was so steep that it was necessary to use the hands in mounting it. I understood that the ladder was always removed in the night, for the sake of security. We entered at once into the presence-chamber, where the whole divan, if such it may be called, sat in arm-chairs, occupying the half of a large round table, covered with a white cotton cloth. On the opposite side of the table, seats were placed for us. On our approach, the sultan and all his council rose, and motioned us to our seats. When we had taken them, the part of the room behind us was literally crammed with well-armed men. A few minutes were passed in silence, during which time we had an opportunity of looking at each other, and around the hall in which we were seated. The latter was of very common workmanship, and exhibited no signs of oriental magnificence. Overhead hung a printed cotton cloth, forming a kind of tester, which covered about half of the apartment. In other places the roof and rafters were visible. A part of the house was roughly partitioned off, to the height of nine or ten feet, enclosing, as I was afterwards told, the sultan's sleeping apartment, and that appropriated to his wife and her attendants.

The sultan is of the middle height, spare and thin; he was dressed in a white cotton shirt, loose trousers of the same material, and slippers; he had no stockings; the bottom of his trousers was worked in scollops with blue silk, and this was the only ornament I saw about him. On his head he wore a small coloured cotton handkerchief, wound into a turban, that just covered the top of his head. His eyes were bloodshot, and had an uneasy wild look, showing that he was under the effects of opium, of which they all smoke large quantities. His teeth were as black as ebony, which, with his bright cherry-coloured lips*, contrasted with his swarthy skin, gave him any thing but a pleasant look.

On the left hand of the sultan sat his two sons, while his right was occupied by his councillors; just behind him sat the carrier of his betel-nut casket. The casket was of filigree silver, about the size of a small tea-caddy, of oblong shape, and rounded at the top. It had three divisions, one for the leaf, another for the nut, and a third for the lime. Next to this official was the pipe-bearer, who did not appear to be held in such estimation as the former.

I opened the conversation by desiring that the datu would explain the nature of our visit, and tell the sultan that I had come to make the treaty which he had some time before desired to form with the United States†.

The sultan replied, that such was still his desire; upon which I told him, I would draw one up for him that same day. While I was explaining to him the terms, a brass candlestick was brought in with a lighted tallow candle, of a very dark colour, and rude shape, that showed but little art in the manufacture. This was placed in the centre of the table, with a plate of Manilla cigars. None of them, however, were offered to us, nor any kind of refreshment.

Our visit lasted nearly an hour. When we arose to take our leave, the sultan and his divan did the same, and we made our exit with low bows on each side.

I looked upon it as a matter of daily occurrence for all those who came to the island to visit the sultan; but the datu mulu took great pains to make me believe that a great favour had been granted in allowing us a sight of his ruler. On the other hand, I dwelt upon the condescension it was on my part to visit him, and I refused to admit that I was under any gratitude or obligation for the sight of His Majesty the Sultan Mohammed Damalial Kisand, but said that he might feel grateful to me if he signed the treaty I would prepare for him.

On our return from the sultan's to the datu mulu's house, we found even a greater crowd than before. The datu, however, contrived to get us seats. The attraction which drew it together was to look at Mr. Agate, who was taking a sketch of Mohammed Polalu, the sultan's son, and next heir to the throne. I had hoped to procure one of

* Chewing the betel-nut and pepper-leaf also produces this effect, and is carried to a great extent among these islanders.

† The sultan, on the visit of one of our merchant-vessels, had informed the supercargo that he wished to encourage our trade, and to see the vessels of the United States coming to his port.

the sultan, but this was declared to be impossible. The son, however, has all the characteristics of the Sooloos, and the likeness was thought an excellent one. Mohammed Polalu is about twenty-three years of age, of a tall slender figure, with a long face, heavy and dull eyes, as though he was constantly under the influence of opium. So much, indeed, was he addicted to the use of this drug, even according to the datu mulu's accounts, that his strength and constitution were very much impaired. As he is kept particularly under the guardianship of the datu, the latter has a strong interest in preserving this influence over him, and seems on this account to afford him every opportunity of indulging in this deplorable habit.

During our visit, the effects of a pipe of this drug was seen upon him; for but a short time after he had reclined himself on the datu's couch and cushion, and taken a few whiffs, he was entirely overcome, stupid, and listless. I had never seen any one so young, bearing such evident marks of the effects of this deleterious drug. When but partially recovered from its effects he called for his betel-nut, to revive him by its exciting effects. This was carefully chewed by his attendant to a proper consistency, moulded in a ball about the size of a walnut, and then slipped into the mouth of the heir-apparent.

One of the requests I had made of the sultan was, that the officers might have guides to pass over the island. This was at once said to be too dangerous to be attempted, as the datu's of the interior and southern towns would in all probability attack the parties. I understood what this meant, and replied that I was quite willing to take the responsibility, and that the party should be well armed. To this the sultan replied, that he would not risk his own men. This I saw was a mere evasion, but it was difficult and would be dangerous for our gentlemen to proceed alone, and I therefore said no more. On our return to the datu's, I gave them permission to get as far from the beach as they could, but I was afterwards informed by them that in endeavouring to penetrate into the woods, they were always stopped by armed men. This was also the case when they approached particular parts of the town, but they were not molested as long as their rambles were confined to the beach. At the datu's we were treated to chocolate and negus in gilt-edged tumblers, with small stale cakes, which had been brought from Manilla.

After we had set some time I was informed that Mr. Dana missed his bowie-knife pistol, which he had for a moment laid down on a chest. I at once came to the conclusion that it had been stolen, and as the theft had occurred in the datu's house, I determined to hold him responsible for it, and gave him at once to understand that I should do so, informing him that the pistol must be returned before the next morning, or he must take the consequences. This threw him into some consternation, and by my manner he felt that I was serious.

The theft was so barefaced an affair, that I made up my mind to insist on its restoration. At the setting of the watch in the evening, it had been our practice on board the Vincennes to fire a small brass howitzer. This frequently, in the calm evenings, produced a great reverberation, and

rolled along the water to the surrounding islands with considerable noise. Instead of it, on this evening, I ordered one of the long guns to be fired, believing that the sound and reverberation alone would suffice to intimidate such robbers. One was accordingly fired in the direction of the town, which fairly shook the island, as they said, and it was not long before we saw that the rogues were fully aroused, for the clatter of gongs and voices that came over the water, and the motion of lights, convinced me that the pistol would be forthcoming in the morning. In this I was not mistaken, for at early daylight I was awakened by a special messenger from the datu to tell me that the pistol was found, and would be brought off without delay; that he had been searching for it all night, and had at last succeeded in finding it, as well as the thief, on whom he intended to inflict the bastinado. Accordingly, in a short time the pistol was delivered on board, and every expression of friendship and good-will given, with the strongest assurances that nothing of the kind should happen again.

Few if any of the Sooloos can write or read, though many talk Spanish. Their accounts are all kept by the slaves. Those who can read and write are, in consequence, highly prized. All the accounts of the datu of Soung are kept in Dutch, by a young Malay from Ternate, who writes a good hand, and speaks English, and whom we found exceedingly useful to us. He is the slave of the datu, who employs him for this purpose only. He told us he was captured in a brig by the pirates of Basilan, and sold here as a slave, where he is likely to remain for life, although he says the datu has promised to give him his freedom after ten years.

Horses, cows, and buffaloes are the beasts of burden, and a Sooloo may usually be seen riding either one or the other, armed cap-a-pie, with kris, spear, and target, or shield.

They use saddles cut out of solid wood, and many ride with their stirrups so short that they bring the knees very high, and the riders look more like well-grown monkeys than mounted men. The cows and buffaloes are guided by a piece of thong, through the cartilage of the nose. By law, no swine are allowed to be kept on the island, and if they are bought, they are immediately killed. The Chinese are obliged to raise and kill their pigs very secretly, when they desire that species of food; for, notwithstanding the law and the prejudices of the inhabitants, the former continue to keep swine.

The inhabitants of Sooloo are a tall, thin, and effeminate-looking race: I do not recollect to have seen one corpulent person among them. Their faces are peculiar for length, particularly in the lower jaw and chin, with high cheek-bones, sunken, lack-lustre eyes, and narrow foreheads. Their heads are thinly covered with hair, which appears to be kept closely cropped. I was told that they pluck out their beards, and dye their teeth black with antimony, and some file them.

Their eyebrows appear to be shaven, forming a very regular and high arch, which they esteem a great beauty.

The dress of the common people is very like that of the Chinese, with loose and full sleeves, without buttons. The materials of which it is made are grass-cloths, silks, satins, or white cotton, from

China. I should judge from the appearance of their persons, that they ought to be termed, so far as ablutions go, a cleanly people. Their is no outward respect or obeisance shown by the slave to his master, nor is the presence of the datu, or even of the sultan himself, held in any awe. All appear upon an equality, and there does not seem to be any controlling power; yet it may be at once perceived that they are suspicious and jealous of strangers.

The Sooloos, although they are ready to do any thing for the sake of plunder, even to the taking of life, yet are not disposed to hoard their ill-gotten wealth, and, with all their faults, cannot be termed avaricious.

They have but few qualities to redeem their treachery, cruelty, and revengeful dispositions; and one of the principal causes of their being so predominant, or even of their existence, is their inordinate lust for power. When they possess this, it is accompanied by a haughty, consequential, and ostentatious bravery. No greater affront can be offered to a Sooloo, than to underrate his dignity and official consequence. Such an insult is seldom forgiven, and never forgotten. From one who has made numerous voyages to these islands, I have obtained many of the above facts, and my own observation assures me that this view of their character is a correct one. I would, however, add another trait, which is common among them, and that is cowardice, which is obvious, in spite of their boasted prowess and daring. This trait of character is universally ascribed to them among the Spaniards in the Philippines, who ought to be well acquainted with them.

The dress of the women is not unlike that of the men in appearance. They wear close jackets of various colours when they go abroad, and the same loose breeches as the men, but over them they usually have a large wrapper (sarong), not unlike the pareu of the Polynesian islanders, which is put round them like a petticoat, or thrown over the shoulders. Their hair is drawn to the back of the head, and around the forehead it is shaven in the form of a regular arch, to correspond with the eyebrows. Those that I saw at the sultan's were like the Malays, and had light complexions, with very black teeth. The datu thought them very handsome, and on our return he asked me if I had seen the sultan's beauties. The females of Sooloo have the reputation of ruling their lords, and possess much weight in the government by the influence they exert over their husbands.

It may be owing to this that there is little jealousy of their wives, who are said to hold their virtues in no very great estimation. In their houses they are but scantily clothed, though women of rank have always a large number of rings on their fingers, some of which are of great value, as well as ear-rings of fine gold. They wear no stockings, but have on Chinese slippers, or Spanish shoes. They are as capable of governing as their husbands, and in many cases more so, as they associate with the slaves, from whom they obtain some knowledge of Christendom, and of the habits and customs of other nations, which they study to imitate in every way.

The mode in which the Sooloos employ their time may be exemplified by giving that of the datu; for all, whether free or slave, endeavour to imitate

the higher rank as far as is in their power. The datus seldom rise before eleven o'clock, unless they have some particular business; and the datu mulu complained of being sleepy in consequence of the early hour at which we had disturbed him.

On rising, they have chocolate served in gilt glassware, with some light biscuit, and sweetmeats imported from China or Manilla, of which they informed me they laid in large supplies. They then lounge about their houses, transacting a little business, and playing at various games, or, in the trading season, go to the meeting of the Ruma Bechara.

At sunset they take their principal meal, consisting of stews of fish, poultry, beef, eggs, and rice, prepared somewhat after the Chinese and Spanish modes, mixed up with that of the Malay. Although Moslems, they do not forego the use of wine, and some are said to indulge in it to a great extent. After sunset, when the air has become somewhat cooled by the refreshing breezes, they sally forth attended by their retainers to take a walk, or proceed to the bazaars to purchase goods, or to sell or to barter away their articles of produce. They then pay visits to their friends, when they are in the habit of having frequent convivial parties, talking over their bargains, smoking cigars, drinking wine and liqueurs, tea, coffee, and chocolate, and indulging in their favourite pipe of opium. At times they are entertained with music, both vocal and instrumental, by their dependants. Of this art they appear to be very fond, and there are many musical instruments among them. A datu, indeed, would be looked upon as uneducated if he could not play on some instrument.

It is considered polite that when refreshments are handed they should be partaken of. Those offered us by the datu were such as are usual, but every thing was stale. Of fruit they are said to be very fond, and can afford to indulge themselves in any kinds. With all these articles to cloy the appetite, only one set meal a day is taken; though the poorer classes, fishermen and labourers, partake of two.

The government of the Sooloo Archipelago is a kind of oligarchy, and the supreme authority is vested in the sultan and the Ruma Bechara or trading council. This consists of about twenty chiefs, either datus, or their next in rank, called oranges, who are governors of towns or detached provinces. The influence of the individual chiefs depends chiefly upon the number of their retainers or slaves, and the force they can bring into their service when they require it. These are purchased from the pirates, who bring them to Sooloo and its dependencies for sale. The slaves are employed in a variety of ways, as in trading prahus, in the pearl and biche-de-mar fisheries, and in the search after the edible birds'-nests.

A few are engaged in agriculture, and those who are at all educated are employed as clerks. These slaves are not denied the right of holding property, which they enjoy during their lives, but at their death it reverts to the master. Some of them are quite rich, and what may appear strange, the slaves of Sooloo are invariably better off than the untitled freemen, who are at all times the prey of the hereditary datus, even of those who hold no official stations. By all accounts these constitute a large proportion of the population, and it being

treason for any low-born freeman to injure or maltreat a datu, the latter, who are of a haughty, overbearing, and tyrannical disposition, seldom keep themselves within bounds in their treatment of their inferiors. The consequence is, the lower class of freemen are obliged to put themselves under the protection of some particular datu, which guards them from the encroachment of others. The chief to whom they thus attach themselves, is induced to treat them well, in order to retain their services, and attach them to his person, that he may, in case of need, be enabled to defend himself from depredations, and the violence of his neighbours.

Such is the absence of legal restraint, that all find it necessary to go abroad armed, and accompanied by a trusty set of followers, who are also armed. This is the case both by day and night, and, according to the datu's account, frequent affrays take place in the open streets, which not unfrequently end in bloodshed.

Caution is never laid aside, the only law that exists being that of force; but the weak contrive to balance the power of the strong by uniting. They have not only contentions and strife among themselves, but it was stated at Manila that the mountaineers of Sooloo, who are said to be Christians, occasionally make inroads upon them. At Sooloo, however, it did not appear that they were under much apprehension of these attacks. The only fear I heard expressed was by the sultan, in my interview with him; and the cause of this, as I have already stated, was probably a desire to find an excuse for not affording us facilities to go into the interior. Within twenty years, however, the reigning sultan has been obliged to retire within his forts, in the town of Sooloo, which I have before adverted to.

These people are hostile to the Sooloos of the coast and towns, who take every opportunity to rob them of their cattle and property, for which the mountaineers seek retaliation when they have an opportunity. From the manner in which the datu spoke of them, they are not much regarded. Through another source I learnt that the mountaineers were Papuans, and the original inhabitants of the islands, who pay tribute to the sultan, and have acknowledged his authority, ever since they were converted to Islamism. Before that time they were considered extremely ferocious, and whenever it was practicable they were destroyed. Others speak of an original race of Dyacks in the interior, but there is one circumstance to satisfy me that there is no confidence to be placed in this account, namely, that the island is not of sufficient extent to accommodate so numerous a population as some ascribe to it.

The forts consist of a double row of piles, filled in with coral blocks. That situated on the east side of the small stream may be said to mount a few guns, but these are altogether inefficient; and in another, on the west side, which is rather a rude embankment than a fort, there are some twelve or fifteen pieces of large calibre; but I doubt very much if they had been fired off for years, and many of the houses built upon the water would require to be pulled down before these guns could be brought to bear upon any thing on the side of the bay, supposing them to be in a good condition; a little farther to the east of the town, I was in-

formed they had a kind of stockade, but none of us were permitted to see it.

According to our estimates, and the information we received while at Sooloo, the island itself does not contain more than thirty thousand inhabitants, of which the town of Soung may have six or seven thousand. The whole group may number about one hundred and thirty thousand. I am aware, however, that it is difficult to estimate the population of a half-civilized people, who invariably exaggerate their own strength; and visitors are likewise prone to do the same thing. The Chinese comprise about an eighth of the population of the town, and are generally of the lower class. They are constantly busy at their trades, and intent upon making money.

At Soung, business seems active, and all, slaves as well as masters, seem to engage in it. The absence of a strong government leaves all at liberty to act for themselves, and the Ruma Bechara gives unlimited freedom to trade. These circumstances promote the industry of the community, and even that of the slave, for he too, as before observed, has a life interest in what he earns.

Soung being the residence of the sultan, as well as the grand dépôt for all piratical goods, is probably more of a mart than any of the surrounding towns. In the months of March and April it is visited by several Chinese junks, who remain trading until the beginning of the month of August. If delayed after that time, they can scarcely return in safety, being unable to contend with the boisterous weather and head winds that then prevail in the Chinese seas. These junks are said to come chiefly from Amoy, where the cottons, &c., best suited for the Sooloos, are made. Their cargoes consist of a variety of articles of Chinese manufacture and produce, such as silk, satin goods, cottons, red and checked, grass-cloth clothing, handkerchiefs, cutlery, guns, ammunition, opium, lumber, china and glass-ware, rice, sugar, oil, lard, and butter. In return for this merchandise they obtain camphor, birds'-nests, rattans, biche-de-mar, pearls and pearl-shells, cocoa, tortoise-shell, and wax; but there is no great quantity of these articles to be obtained, perhaps not more than two or three cargoes during the season. The trade requires great knowledge of the articles purchased, for the Chinese and Sooloos are both such adepts in fraud, that great caution and circumspection are necessary.

Soung Road offers good anchorage; and supplies of all kinds may be had in abundance. Beef is cheap, and vegetables and fruits at all seasons plenty. Our observations placed the town in latitude 6° 1' N., longitude 120° 55' 51" E.

On the 6th, having concluded the treaty and the other business that had taken me to Sooloo, we took our departure for the Straits of Balabac, the western entrance into this sea, with a fine breeze to the eastward. By noon we had reached the group of Pangootaaraang, consisting of five small islands. All of these are low, covered with trees, and without lagoons. They presented a great contrast to Sooloo, which was seen behind us in the distance. The absence of the swell of the ocean in sailing through this sea is striking, and gives the idea of navigating an extensive bay, on whose luxuriant islands no surf breaks. There are, however, sources of danger that incite the navigator to

watchfulness and constant anxiety; the hidden shoals and reefs, and the sweep of the tide, which leave him no control over his vessel.

Through the night, which was exceedingly dark, we sounded every twenty minutes, but found no bottom; and at daylight on the 7th, we made the islands of Cagayan Sooloo, in latitude $7^{\circ} 3' 30''$ N., longitude $118^{\circ} 37'$ E. The tide or current was passing the islands to the west-south-west, three-quarters of a mile per hour; we had soundings of seventy-five fathoms. Cagayan Sooloo has a pleasant appearance from the sea, and may be termed a high island. It is less covered with undergrowth and mangrove-bushes than the neighbouring islands, and the reefs are comparatively small. It has fallen off in importance; and by comparing former accounts with those I received, and from its present aspect, it would seem that it has decreased both in population and products. Its caves formerly supplied a large quantity of edible birds'-nests; large numbers of cattle were to be found upon it; and its cultivation was carried on to some extent. These articles of commerce are not so much attended to at the present time, and the biche-de-mar and tortoise-shell, formerly brought hither, are now carried to other places. There is a small anchorage on the west side, but we did not visit it. There are no dangers near these small islands that may not be guarded against. Our survey extended only to their size and situation, as I deemed it my duty to devote all the remainder of the time I had to spare to the Straits of Balabac.

At 9 A.M. of the 8th, we made the Mangsee Islands ahead of us, and likewise Balabac to the north, and Balambangan to the south. Several sand-banks and extensive reefs were also seen between them. On seeing the ground on which we had to operate, of which the published charts give no idea whatever, I determined to proceed, and take a central position with the ship under the Mangsee Islands; but in order not to lose time, I hoisted out and dropped two boats, under Lieutenant Perry, to survey the first sand-bank we came to, which lies a few miles to the eastward of these islands, with orders to effect this duty and join me at the anchorage, or find a shelter under the lee of the islands.

At half-past 2 P.M. we anchored near the reef, in thirty-six fathoms water. I thought myself fortunate in getting bottom, as the reefs on closing with them seemed to indicate but little appearance of it.

The rest of the day was spent in preparing the boats for our operations. I now felt the want of the tender. Although, in the absence of this vessel, great exposure was necessary to effect this survey, I found both officers and men cheerful and willing. The parties were organized,—the first to proceed to the north, towards Balabac Island, to survey the intermediate shoals and reefs, under Lieutenant Emmons and Mr. Totten; the second to the south, under Lieutenants Perry and Budd; and Mr. Hammersly for the survey of the shoals of Balambangan and Banguay, and their reefs. The examination of the Mangsee Islands, and the reefs adjacent, with the astronomical and magnetic observations, &c., devolved on myself and those who remained on board the ship.

The weather was watched with anxiety, and

turned out disagreeable, heavy showers and strong winds prevailing; notwithstanding, the boats were despatched, after being as well protected against it as possible. We flattered ourselves that these extensive reefs would produce a fine harvest of shells; but, although every exertion was made in the search, we did not add as many to our collections as we anticipated. Some land-shells, however, were found that we little expected to meet with, for many of the trees were covered with them, and on cutting them down, large quantities were easily obtained. Mr. Peale shot several birds, among which was a Nicobar pigeon; some interesting plants and corals were also added. On the island a large quantity of drift-wood was found, which with that which is growing affords ample supplies of fuel for ships. No fresh water is to be had, except by digging, the island being but a few feet above high-water mark.

Although the time was somewhat unfavourable, Lieutenant Emmons and party executed their orders within the time designated, and met with no other obstructions than the inclemency of the weather. This was not, however, the case with Lieutenant Perry, who, near a small beach on the island of Balambangan, encountered some Sooloos, who were disposed to attack him. The natives, no doubt, were under the impression that the boats were from some shipwrecked vessel. They were all well armed, and apparently prepared to take advantage of the party if possible; but, by the prudence and forbearance of this officer, collision was avoided, and his party saved from an attack.

The island of Balambangan was obtained from the Sooloos for a settlement and place of deposit, by the East India Company, who took possession of it in 1773. Its situation off the northern end of Borneo, near the fertile district of that island, its central position, and its two fine ports, offered great advantages for commerce, and for its becoming a great entrepôt for the riches of this archipelago. Troops, and stores of all kinds, were sent from India; numbers of Chinese and Malays were induced to settle; and Mr. Herbert, one of the council of Bencoolen, was appointed governor. It had been supposed to be a healthy place, as the island was elevated, and therefore probably free from malaria; but in 1775 the native troops from India became much reduced from sickness, and the post consequently much weakened. This, with the absence of the cruisers from the harbour, afforded a favourable opportunity for its capture; and the wealth that it was supposed to contain created an inducement that proved too great for the hordes of marauding pirates to resist. Choosing their time, they rushed upon the sentries, put them to death, took possession of the guns, and turned them against the garrison, only a few of whom made their escape on board of a small vessel. The booty in goods and valuables was said to have been very large, amounting to nearly four hundred thousand pounds sterling.

As the principal objects of my visit were to ascertain the disposition and resources of the Sooloos for trade, and to examine the straits leading into the Sooloo seas, in order to facilitate the communication with China, by avoiding on the one hand the eastern route, and on the other the dangers of the Palawan Passage, it may be as well to give the result of the latter inquiry.

The difficulties in the Palawan Passage arising from heavy seas and fresh gales do not exist in the Sooloo Sea, nor are the shoals so numerous or so dangerous. In the place of storms and rough water, smooth seas are found, and for most of the time moderate breezes, which do not subject a vessel to the wear and tear experienced in beating up against a monsoon.

The Straits of Balabac may be easily reached, either from Singapore, or by beating up along the western shore of Borneo. When the straits are reached, a vessel by choosing her time may easily pass through them by daylight, even by beating when the wind is ahead. Once through, the way is clear, with the exception of a few coral lumps; the occasional occurrence of the north wind will enable a vessel to pass directly to the shores of the island of Panay. A fair wind will ordinarily prevail along that island, and, as I have already mentioned, it may be approached closely. The passage through to the eastward of Mindoro Island may be taken in preference to that on the west side through the Mindoro Strait, and thus all the reefs and shoals will be avoided. Thence, the western coast of Luzon will be followed to the north, as in the old route.

I do not think it necessary to point out any particular route through the Sooloo Sea, as vessels must be guided chiefly as the winds blow, but I would generally avoid approaching the Sooloo Islands, as the currents are more rapid, and set rather to the southward. Wherever there is anchorage, it would be advisable to anchor at night, as much time might thus be saved, and a knowledge of the currents or sets of the tides obtained. Perhaps it would be as well to caution those who are venturesome, that it is necessary to keep a good look-out, and those who are timid, that there does not appear to be much danger from the piratical prahus, unless a vessel gets on shore: in that case it will not be long before they will be seen collecting in the horizon in large numbers. To conclude, I am satisfied that under ordinary circumstances, to pass through the Sooloo Sea will shorten by several days the passage to Manilla or Canton, and be a great saving of expense in the wear and tear of a ship and her canvass.

On the 13th, we passed near the location of the Viper Shoal, but saw nothing of it. It is, therefore, marked doubtful on the chart. As I had but little time to spare, the look-outs were doubled, and we pursued our course throughout the night, sounding as we went every fifteen minutes; but nothing met our view.

On the 18th, we made Pulo Aor and Pulo Pedang, and arriving off the Straits of Singapore I hove-to, to await daylight. In the morning at dawn, we found ourselves in close company with a Chinese junk. The 19th, until late in the afternoon, we were in the Singapore Straits, making but slow progress towards this emporium of the east. The number of native as well as foreign vessels which

we passed, proved that we were approaching some great mart, and at 5 P.M. we dropped our anchor in Singapore Roads. Here we found the Porpoise, Oregon, and Flying-Fish, all well: the two former had arrived on the 22nd of January, nearly a month before, and the latter three days previously. Before concluding this chapter, I shall revert to their proceedings since our separation off the Sandwich Islands.

The instructions to the brigs have been heretofore given; but it may not be amiss to repeat here that the object in detaching them was, that they might explore the line of reefs and islands known to exist to the northward and westward of the Hawaiian Group, and thence continue their course towards the coast of Japan. Had they effected the latter object, it would have given important results in relation to the force of the currents, and the temperature of the water. It was desirable, if possible, to ascertain with certainty the existence on the coast of Japan of a current similar to the Gulf Stream, to which my attention had been particularly drawn.

The first land they made was on the 1st of December, 1841, and was Necker Island. Birds, especially the white tern, had been seen in numbers prior to its announcement. Necker Island is apparently a mass of volcanic rocks, about three hundred feet high, and is destitute of any kind of vegetation, but covered with guano. It is surrounded by a reef, three miles from which soundings were obtained, in twenty fathoms water. The furious surf that was beating on all sides of the island, precluded all possibility of a landing being made. By the connected observations of the vessels, it lies in longitude $164^{\circ} 37' W.$, and latitude $23^{\circ} 44' N.$

The French-Frigate Shoal was seen on the 3rd; the weather proved bad, and they were unable to execute the work of examining this reef. The sea was breaking furiously upon it.

On the 7th, the Maro Reef was made in latitude $25^{\circ} 24' 29'' N.$, longitude $170^{\circ} 43' 24'' W.$ Bottom was found at a distance of four miles from the reef, with forty-five fathoms of line. On the 8th, they passed over the site of Neva Isle, as laid down by Arrowsmith, but no indications of land were seen.

On the 11th, Lieutenant-Commandant Ringgold determined, on account of the condition of the brigs, and the continuance of bad weather, it was impossible to keep their course to the northward and westward towards the coast of Japan: he therefore hauled to the southward, which was much to be regretted, and followed so very nearly in the same track as that pursued by the Vincennes, towards the China seas, that nothing new was elicited by them.

After a passage of fifty-six days from the Sandwich Islands, they dropped their anchors in Singapore on the 19th of January, 1842, all well.

CHAPTER XXXVIII.

SINGAPORE.

VARIETY OF SHIPPING IN THE ROADS—VIEW OF THE TOWN—AMERICAN CONSUL—ENTRANCE OF THE RIVER—LANDING—VARIETY OF COSTUMES, RACES, RELIGIONS, AND LANGUAGES—POLICE AND MILITARY FORCE—TIGERS—BOTANY AND CULTIVATED PLANTS—SOIL AND SUGAR—MODE OF CONVEYANCE—CHINESE INHABITANTS—THEIR GAMBLING—THEIR APPEARANCE AND DRESS—THEIR FESTIVAL OF THE NEW YEAR—THEIR THEATRICALS—CONVICTS—MARKET—CURRENCY—TRADES—MALAYS—ARMENIANS—PARSEES—ARABS—CAFFRES—MIXTURE OF RACES—SHIP OF THE KING OF COCHIN-CHINA—CHINESE JUNKS—TRADE OF SINGAPORE—OPIUM SHOPS—POPULATION OF SINGAPORE—CLIMATE OF SINGAPORE—SALE OF FLYING-FISH—DEPARTURE FROM SINGAPORE.

We found at Singapore a collection of shipping, of various sizes, from the tiny cockboat to the stately and well-formed Indiaman, from the vast hulk-like junk to the light and skipping sampan*. Not only were a great part of the vessels of a novel description, but their national flags were equally strange. Many of the latter were now seen by us for the first time, and were displayed in various ways; some flew at each masthead, others floated from horizontal yards, while the more civilized nations were distinguished by ensigns pendent from the peak.

The variety in the style of paint and ornament was equally great. The Chinese junks exhibited their arched sides painted in curved streaks of red, yellow, and white; the Siamese ships, half European in structure and model, showed huge carved sterns; and these were contrasted with the long, low, and dark hulls of the prahus and the opium-smuggler. The two latter classes perhaps excited the greatest attention, in consequence of the war they are continually carrying on against the property and lives, as well as the morals and laws, of the natives of the surrounding countries.

It is difficult to estimate the average number of vessels that are to be seen in the roads of Singapore; for on some days they appear crowded, while on others they are comparatively empty. While many vessels are continually arriving and departing, the Chinese junks alone appear as fixtures; more than fifty of them were counted, with sails unbent, yards housed, and rudders unhung, in which state they resemble floating shops, wherein are offered for sale assortments of every article produced or manufactured in the Celestial Empire; samples of which, by way of sign, are to be seen hanging about them in all directions. These junks make no more than one voyage a year, performing their passage in either direction during the favouring monsoon.

Unlike other ports, the water presents at first so many objects to attract the attention, that the land and town remain unnoticed until the curiosity in relation to those which are afloat is satisfied. On turning to view the town, its situation appears to be low, as well as that of the island on which it is built. The highest point of the latter is not more than five hundred feet above the level of the sea, and even this elevation is distant, so that there is

nothing to render the scenery picturesque, nor has it much of the character that is styled Oriental. The distant jungle, however, relieved by the white portions of buildings in the European style, furnishes a landscape pleasing to the eye. These buildings seem to be upon the very beach, while a hill in the rear is crowned by the dwelling of the governor, near which is the flag-staff. The intervening space is filled with buildings, whose style holds an intermediate place between that of Europe and that of the Chinese and Malays, neither of which predominates so much as to give its distinctive character to the scene.

The stranger, after anchoring in the roads, is not long before he discovers the point at which the river discharges itself; for one continued stream of boats, sampans, and prahus, is seen tending to a point in the beach, where the entrance is partly concealed from view; neither can he be long ignorant how large a concourse of various races is here assembled. Our ship was crowded from an early hour with tailors, shoemakers, washerwomen, and venders of curiosities. The latter brought shells, birds of paradise, monkeys, parrots, corals, and mats. Without board there were innumerable bumboats, bringing for sale fresh bread, eggs, milk, chickens, and ducks, both alive and cooked, fish, fruit, and vegetables. All sued piteously for permission to come alongside, and made a prodigious clatter. The features, dress, and language of the venders were as various as the articles they had to sell; and they agreed only in the common character of a dark skin. The specimen thus presented of the population of Singapore prepared us for the sight of the motley group we were to meet on shore.

At Singapore I had the pleasure of renewing my acquaintance with Mr. Balestier, our worthy consul. To him, his lady, and his son, we are under many obligations for their kind treatment and attention. Mr. Balestier is so well known among men of science in the United States, it would be needless for me to say that from him I derived much interesting information relative to the place, its commerce, &c., for which I here offer my acknowledgments. He was extensively engaged in the cultivation of sugar, on a plantation of one thousand acres, within two miles of Singapore, nearly half of which was under cultivation. This extent of ground he has by his exertions reclaimed from the jungle, and it bids fair to repay the labour and expense he has incurred in clearing and bringing it into cultivation. He is the first

* The sampan is a light and easy-pulling boat, used at Singapore to carry passengers to and from the shipping in the roads.

person who has attempted the cultivation of sugar at Singapore, and for his success he was awarded the gold medal of the Calcutta Agricultural Society.

As we passed through the vessels with which the roads were crowded on our way to the shore, the hum of voices was plainly audible, particularly from the Chinese junks, which seemed not unlike a human hive. On reaching the mouth of the river, as was to be expected, the crowd thickened, and the way became more and more obstructed, until we were fairly jammed among the sampans, with their crowded population. The river does not exceed two hundred and fifty feet in width. It is shallow at its mouth, and passes through the centre, or rather divides the old from the new town; these are connected by a wooden bridge. As far up as the bridge, which is about one-third of a mile from the entrance, the river is of various widths, and its banks have been carefully built up with stone, having steps occasionally for the convenience of landing from the boats. A large population is on the river, dwelling in the sampans, which are all crowded with men, women, and children, the latter naked, and frolicking in and out of the water at pleasure. These boats are ranged in rows on each side of the passage towards the bridge, and are confined by stakes stuck in the bottom. As may be well imagined, there are frequent accidents and misadventures, that call for the exercise of the lungs of this crowded multitude, yet during the many opportunities I had of viewing them, both by day and night, I have seldom seen a set of people apparently so contented.

We landed at the bridge, near which is the office of our consul, in a large quadrangular building, one side of which faces the river. The terms of old and new town promise a difference of architecture as well as inhabitants, which they amply fulfil. The former occupies the south-west or left-hand side of the river, and exhibits along the quay a fine row of stuccoed or chunamed warehouses. The lower story of the greater part of these is an arcade supported by pillars at short distances. They are only two stories high, devoid of architectural ornament, but are convenient buildings for the trade. On the right are to be seen the buildings appropriated to the government offices. These are situated on an extensive parade-ground, studded with a few fine trees. The houses having extensive porticoes, and being adorned with flowers in large vases, have rather an elegant appearance, but this is in part dissipated on a nearer approach. They are usually enclosed with low walls, surmounted by iron railings, within which are small flower-gardens, that do not, however, display much taste.

The bridge which connects the two towns is by far the most attractive place in Singapore, for the constant passing and repassing across this thoroughfare makes it particularly amusing to a stranger. The consul's rooms were so situated as to command a free view of this moving panorama. The number of Asiatic nations that frequent Singapore is said to be twenty-four, consisting of Chinese, Hindoos, Malays, Jews, Armenians, Parsees, Bugists, besides Europeans. The variety of costume exhibited may therefore be easily imagined, and afforded opportunities for inquiry as well as amuse-

ment. The bridge was particularly thronged during the first day of our visit, for it was a holiday, both with the Chinese and Mahomedans of Hindoostan.

The trades, as is usual in the East, are carried on in the streets, and carpenters, blacksmiths, tinners, butchers, bakers, tailors, barbers, crockery and opium sellers, and coffin-makers, are to be met in succession. Money-changers are to be found here and there, and large well-supplied shops are not wanting, although their narrow and contracted fronts give no reason to anticipate their existence. That of Whampoa, our comprador, was one of the largest, and it gave a better idea of Noah's ark than of any thing else, presenting a mixture of living animals, with every thing that is required for the artificial wants of the shipping. In front were all the varieties of ship stores that China and Europe could furnish; and in the rear were poultry, pigs, sheep, and pigeons, in pens and cages, with various parrots, cockatoos, and monkeys, while quantities of geese and ducks were accommodated beneath with pools of water. Between the live-stock and the groceries were large quantities of vegetables and fruit, besides lots of bread, flour, and dough ready for the oven. The noise occasioned by the cackling, bellowing, crowing, and bleating, with the accumulation of filth, surprised as well as disgusted; for although it was reached at every tide by the water, yet there was ample necessity for the use of brooms and shovels. The Chinese, though cleanly in their persons, are far from being so in their general habits, if we may judge from those that I have met in the places we have visited.

On landing, that which impresses a stranger most strongly, is the great variety both of costume and of race. Almost every person that is encountered appears different from his predecessor, so that it is some time before it can be decided which nation predominates; but on reaching the old town, this is no longer doubtful, for the Chinese are soon found to be the most numerous.

The variety of religious sects also soon become evident. All have their places of worship, and enjoy the free exercise of their religion, so that in passing around, the mosque of the Mahomedan, the temple of the Chinese, and the churches of various Christian sects, are met with in their turn.

The number of spoken languages is such as to recall the idea of Babel, and to excite a desire to learn the cause of such a collection of nations. This is partly to be found in the favourable commercial site of Singapore, on the great highway between the eastern and western nations, and in the protection afforded to all by its being under a European power, but chiefly in the fact of its being a free port, in every sense of the word. All are allowed to visit it without any question being asked; pirates of any nation may refit here, and no doubt frequently do, without any molestation, so long as they keep the peace.

I was much struck with the apparent absence of either police or military force; but after some inquiry, I was satisfied, by the order and general quiet of the multitude, that there must be a controlling power within reach, and found the policemen under the semblance of Persians, easily distinguishable by their neat and cleanly appearance. They are generally better dressed than the body of the

inhabitants, and are to be known by their red and black sashes, and turbaned heads. Without the precincts of the town, a regiment of Sepoys, six hundred strong, and officered by Europeans, is stationed. These are to be seen habited like English soldiers, in close-bodied red coats, than which a more inappropriate dress in such a climate as this can scarcely be imagined.

The island of Singapore is composed of red clay, sandstone, and in some places granite. The locality of the town appears to have been a salt-marsh, with a narrow strip of rocks and sand near the beach. In consequence of its rapid increase, they are beginning now to fill up the low ground with the surplus earth taken from the surrounding hills.

The highest point of Singapore is called Bukit Timah, and does not exceed, it is said, five hundred feet in elevation. Although this height is but seven miles distant from the town, I was told it has never yet been visited by a European and seldom by natives, on account of the obstructed nature of the intervening country; there are a few small fishing or piratical establishments (the two names are synonymous here, for when the people are not engaged in the one, they are in the other), on the north and west end of the island. The length of the island is twenty-seven miles, and its greatest breadth is fifteen. It is divided from the peninsula by the old strait of Singapore, so long followed by navigators, for reasons it is now difficult to surmise, when the short, wide, and safe channel was open to them, which is now altogether used.

The botany of Singapore is far from being thoroughly known, notwithstanding so many scientific expeditions have visited it; nor is it likely to become so very soon, infested as the woods are with tigers. It is remarkable that before the island was inhabited, tigers did not exist in it, although there were great numbers of them in the peninsula opposite; and it is said that they have only made their appearance here within the last six or seven years. Indeed, one of the reasons assigned for its selection, was the absence of this ferocious animal, and of the wild elephant. It is to be presumed, therefore, that the tigers come in search of food, by swimming over the narrow straits. Some fifty persons have been killed by them within the last two years, within two miles of the centre of the town, and two hundred in all are reported as having become victims to these beasts. Criminals and thieves were formerly in the habit of escaping to the woods or jungle, but of late years this has not been attempted by them.

The government, in consequence of the attacks of tigers becoming so frequent, and of the jungle being so much infested by them, offered a premium of one hundred dollars for every tiger's head that should be brought in. This induced large parties to hunt them; but since the government have reduced the reward to fifty dollars, this daring business has not been followed; not, however, from any scarcity of the animals, for they now frequently seize men working in the immediate vicinity, but because the sum is too small to be an equivalent for the risk and trouble.

The soil of the island is a stiff yellow loam, in which the nutmeg, coffee, black pepper, chocolate, and gamboge (*garcinia*), grow to a great extent. The three first appear to be particularly well

adapted to the climate and soil. The cultivation of sugar is attended with success. Captain Scott is planting the durian, which, independently of its fruit, yields a timber highly valued for ship-building. This gentleman has left numerous forest trees standing on his plantation, many of which are of large dimensions, being full one hundred feet in height. These consisted chiefly of species of *quercus*, *myrtaceæ*, *melastomaceæ*, and *rubiacæ*. The undergrowth is almost impenetrable, on account of the vast number of creeping plants which intertwine and clasp around the trees. Two species of *nepenthe* (pitcher-plants) were found in the swamp, which were preserved and brought to the United States.

Fruit seemed to be very abundant, and it is said, that there are one hundred and twenty kinds that can be served as a dessert: among these are pine-apples, mangosteens, melons, bananas, oranges, &c. The pine-apples are remarkably fine, and not in the least acid; in proof of which, they do not turn the knife black in cutting them, and to eat them is considered wholesome at all hours. The season for this fruit was just coming in at the time of our arrival, and large boat-loads were seen lying at the quay. They are usually planted along the roadside, and though, when small, rather stiff-looking, yet when full-grown and in bearing, they are a pretty object. Of all the plants we saw, the nutmeg requires and receives the greatest care. The trees are planted in orchards, and while young have a sort of arbour erected over them, to protect them from the vertical rays of the sun.

The gambier (*nauclea*) also claims much of the attention of the cultivator: it is a low-sized tree, or bush, of no beauty. Its bark is used for tanning, and it is said to be the most powerful astringent known for this purpose. It is to be seen in the shops in the form of a powder, of a reddish brown colour. We did not learn how this was prepared, or how it was used: it appears, however, to be in great demand. It is occasionally used by the Chinese, with their betel-nut, of which there is a great consumption here, although it is not sold in the streets, as at Manila; but quantities of the nuts are seen for sale in the market. From the leaves also a powerful astringent is obtained by boiling.

The gamboge tree is also cultivated here, but more extensively on the shores of the straits than at Singapore, and is a very considerable article of trade.

The ride outside of the town to the hills is pleasant, passing through plantations loaded with fruit, and the air at an early hour of the morning is filled with a spicy fragrance. The vivid green of the woods and grass is also remarkable, and continues throughout the whole year, for scarcely a day passes but a refreshing shower falls. The roads are thus kept free from dust, and at all times in good order. The usual mode of conveyance is in a palanquin, which is capable of containing two persons. The coolie, or Hindoo who attends his horse, usually runs by the side of the palanquin, and seldom tires. The charge for one of these conveyances is a dollar, whether for a whole or a part of a day, and a *douceur* is paid to the coolie according to the time he has been employed. The palanquin is a very convenient vehicle, and its use

is absolutely necessary during the heat of the day, to shield the stranger from the burning rays of the sun. These coolies will run all day through it without any inconvenience. They are principally from the neighbourhood of Madras, and are generally about the middle size, thin, and muscular.

We found, on our arrival, the whole of this motley population engaged in a festival. With the Chinese it was that of the New Year, and with the Hindoo Mussulman the feast called "Marama," or the search for and finding of the grandchildren of Mohamed. The Chinese, on such occasions, give themselves up entirely to gambling; and the first day and night I was on shore, this part of the town might be considered as a vast gambling-shop. During this holiday they are allowed to gamble as much as they please, but what restriction is put upon the open indulgence of gaming at other times, I did not learn, but from appearances I should suppose it was not very severe.

The extent to which gaming was carried by the Chinese could not fail to astonish any one who had not been brought up to it. It was extraordinary to see all engaged in such an exciting vice; and to watch the different individuals was amusing. Gaming was going on in every shop, and frequently in each particular corner, under the colonnades, in the bazaars, and at the corner of almost every street a variety of games were playing. Of several of these I had no knowledge; some were performed with cards, and others with dice. The stake seemed generally to be in small copper coin, called pice, about five hundred to the dollar, each of which is valued at three cowries; but although this was the usual betting coin, the stake was sometimes silver, and at times to a considerable amount. Those who have not seen the Chinese play, have never witnessed the spirit of gambling at its height; their whole soul is staked with their money, however small it may be in amount, and they appeared to me to go as earnestly to work as if it had been for the safety of their lives and fortunes.

Almost every one has formed to himself an idea of a Chinese; but to be well known, he requires to be seen on his own soil, or where he is in intercourse with his countrymen. The different individuals of this race seemed to us to have a strong resemblance to each other, and although this may in part be owing to similarity of dress, it is also due to their bodily conformation. The flat chest, in particular, is peculiar, at least to the labouring class. All of them seem active and attentive to their business, of whatever kind it may be, and as far as outward expression and action go, as harmless as lambs. It is somewhat remarkable, that the very sign which was put upon them by their Tartar conquerors to mark them as a subdued race, should now have become their national boast; for nothing seems to claim a Chinaman's attention so much as his long queue, and the longer and blacker it is the more it appears to claim his admiration. We frequently saw it touching the very heels, and tied at the end neatly with a bit of riband. On great occasions this hangs down to its full length; but at other times, being somewhat in the way, it is wound up on the back of the head. I have heard it asserted, that the Chinese never become bald or gray; but this opinion seemed to be erroneous, from what I saw in this small community.

The Chinese is at all times to be found industriously employed, except when gambling; and were it not for this latter propensity, and his desire of cheating foreigners, has probably as few vices as exist in any other race. Wherever he is found, peace and quietness seem to dwell; he moves, and has been moving for ages in the same path, and prefers all his own ways to those of the rest of the world. We saw the Chinese in some pleasing lights, and were much struck, on these festival occasions, by their attention towards their children, and the fondness and invariable kindness with which they were treated.

Before ceasing to speak of the Chinese, I shall give a brief description of their mode of celebrating the New Year, although it was difficult to follow it, and still more so to understand its full meaning. The ceremonies consisted chiefly of processions, both by night and day, in which the whole Chinese population seemed to be engaged. The grand one bore a sort of silken temple, which was carried on the shoulders of several men, with banners before and behind it, having Chinese characters on them, and of the most gaudy colours. These were preceded by music, if such it could be called, consisting of cymbals and gongs, on which every performer strove to strike with his utmost force, and, if possible, oftener than his neighbour. Noise they at least created in perfection. This procession was occasionally joined by smaller ones, and the whole seemed to afford both to the crowd and actors as much amusement as it did to us, to whom it was altogether new. During the night, and particularly on that of the 21st of February, the last day of their year, the illuminated processions were curious, as well as amusing, and were exceedingly numerous. Some of them were to be seen in every street at the same time, and no sooner had one passed than others were seen to follow, all hurrying along as if there were some goal to be reached. The illumination proceeded from lanterns of all colours, sizes, and shapes. We saw also the procession of juvenile horsemen, consisting altogether of children. Each of them bore the fore and hind parts of a horse in such a manner that the child represented the rider. These mimic portions of the quadruped were made of paper, and illuminated. The effect was that of a miniature regiment of cavalry. Others were represented as if on the backs of fish, that seemed to swim along in the crowd. Some of the children were not more than two years of age, and the oldest not more than five or six. They were all fantastically dressed, and some among them in European costume, which had a grotesque effect among the more appropriate dresses of the east. They were led about, preceded by music, such as it was, of gongs and cymbals; and all passed by on a dog-trot. Towards the close of the evening, some of the children had attendants on each side, who carried the poor little fatigued creatures along, many of whom were nearly, if not quite asleep. Whenever this procession halted, the Chinese would load them with cakes and dulces, and showed a kindness and attention truly pleasing. The most extraordinary exhibition of the evening was an immense illuminated sea-serpent, which we all thought fully equalled, in size and movement, the famous New England one, and agreed in other respects tolerably well with its description, for he had at intervals large bumps of the shape of a small

cask. These were in fact lanterns, supported by poles, and connected together by white cotton or gauze, which was here and there coloured. The head of the monster was of large dimensions, with a wide-extended mouth, showing its fiery tongue and rows of sharp teeth. The movements of the serpent were well managed, and its gyrations, twistings, and windings over the people's heads, gave it a formidable look. It appeared as if in search of an illuminated globe, representing the old year, as the serpent is supposed to typify the new one. It was, from time to time, permitted almost to seize the globe, which was then hurried away, upon which the ponderous jaws would come together with a crash, and then the serpent would hurry onward again in hot pursuit. I was told that it swallowed the globe at the expiration of the year, but I did not speak to any one who saw the finale. The figure of this serpent was from eighty to one hundred feet in length, and two feet in diameter.

During this closing scene of the festival, all the Chinese houses were open, and the josh-houses and idols illuminated with wax candles, and decked with flowers and tinsel.

Theatrical exhibitions were at the same time going forward in many places; open sheds are erected for this purpose, where the exhibition was entirely gratuitous. The actors, I was told, are paid by a general subscription, which also provides for the other expenses of the spectacle. These sheds are closed on three sides, but open on that which faces the street. The stage is raised about six feet above the street; the whole is richly decorated with silk hangings, and banners with many inscriptions, and illuminated with coloured lamps. The stage, which was by no means of large size, was occupied by a table and two chairs. The dialogue was in a kind of recitative, with an accompaniment performed by beating with two small sticks on the bottom of a copper kettle of the shape of a coffee-pot. The person who performed this duty appeared to direct all the spectacle, as prompter and leader of the orchestra. The other musical instruments were the gong, cymbals, and a kind of hautboy, the holes of which are not arranged with any view to produce harmonious sounds. The dresses of the actors were very rich, and the females were represented by young men or boys. The male characters were for the most part masked, but not the female; the former generally had long black and white beards. The principal part of the performance seemed to consist in attitudinizing, and appeared to interest the audience, as it did us, although according to our ideas it was not suited to the words or sentiment; for instance, during a pathetic part, whilst the actor was shedding tears, he would suddenly throw up one leg, and almost kick himself on the nose! The acting, upon the whole, was, to our notions, in a mock-heroic style; but this might have arisen from our not being able to comprehend the meaning, for the other spectators seemed greatly interested. There was something, however, which there was no difficulty in our understanding, and this was the fighting. The two combatants draw their swords or handle their spears, and begin turning round poking at each other without closing, when suddenly one runs off; the other, after having evidently informed the audience that he is the victor, then makes his exit, accompanied

with a most tremendous noise from both the music and audience. After the performance had closed, it was with difficulty that I could determine whether it had been comedy or tragedy: whichever it was, it was mingled with still vaulting somersets, cart-wheel motions, and casting themselves about, indifferent as to what part they fell on, in modes which I may truly say, I had never seen surpassed, either in muscular action or agility.

The convicts sent to Singapore are employed upon the public works; and a large prison in the suburbs of Singapore is provided for their safe-keeping at night, or when not at work. I was not able to ascertain their exact number, but I believe it amounts to some fifteen hundred.

The market was well filled with venders, so much so, indeed, that the passages through it are rendered narrow and tortuous; the principal article for sale was fish, fresh and dried, and prawns. This kind of fish is numerous and abundant. The part of the market where they are sold is built over the water, and being furnished with a loose flooring, the filth is easily got rid of. The butcher-meats consisted for the most part of pork, which is raised in large quantities. Fowls and ducks were also very numerous. A number of eggs were seen with the shell broken, to exhibit the dead chicken, and others that were rotten, in which state they were favourite food of the Chinese. Vegetables and dried fruits were also in great abundance; these latter were imported from China. Of vegetables, there were lettuces, onions, garlic, sweet-potatoes, and large quantities of germinating rice, which is sold for planting. Of the quantities of fresh fruit it is almost impossible to give an adequate idea, and they are all of fine kinds, many of which I had never before seen.

The bazaars form the general resort of those who frequent the market. Every avenue, arcade, or veranda approaching it is filled with money-changers, and small-ware dealers, eager for selling European goods, Chinese toys, and many other attractive curiosities. It is necessary to be careful in making even the smallest offers, for although it may be but half or a fourth of what is asked, it is instantly accepted. The money-changers seem to be a peculiar class; they are much darker in colour than the rest of this singular throng, and are seen sitting cross-legged on their tables, with extensive rouleaux of copper coin, heaps of cowrie-shells, and some silver.

The Malay population dwell chiefly in the suburbs, or what are termed the Malay villages. The Malays seem to bear the palm for idleness among the common people, and are rarely found engaged in any steady employment, preferring those that are either light or of a roving character. They engross the occupation of the drivers of palanquins, are strong and active, and will run a great length of time and distance, in a hot and oppressive day, seemingly without inconvenience. Those of the latter sort who are more wealthy, indulge in many luxuries, particularly in dress. They usually wear mustaches, which are always neatly kept, and occupy no small portion of their attention and time; and, contrasted with the white turban, with its band of scarlet and gold, has a particularly pleasing effect, with their swarthy skins. On holidays they are to be met with in

their snow-white raiment, thrown over a richly-embroidered coloured vest, fitting tight to the body, with loose trousers, tied just to meet their embroidered slippers at the ankle.

The most distinguished men as to looks are the Armenians. Although few in number, yet they have much influence from their wealth; they are an exceedingly handsome race, dress after the English fashion, and generally speak English or the Portuguese fluently. Some of them, that I had occasion to visit, were extremely courteous, but spoke of the inhabitants of Singapore generally as of a low class. The Armenian church is one of the finest buildings in the place.

Parsees are not numerous at Singapore, but they rank among the most wealthy of its inhabitants. They are dressed partly after the Eastern and partly after the European fashion. They excited our attention as being worshippers of fire, which they venerate as emblematical of the Deity. They are of various shades of colour, and generally more robust and portly than the other races. Many of them speak the English language.

Some persons, who were said to be Arabs from the east coast of Africa, were also pointed out to me, who were quite different from all the other races. They had what would be termed woolly hair, with large whiskers, and one of them was remarkable for his large blubber lips. Their complexion did not strike any of us as being much darker than that of the Hindoos or Malays. Their face was long, and the nose by no means prominent: one of these had a strange appearance about his head, and it was some time before it was discovered that it was owing to his beard and whiskers, which were long, being in gray and black stripes. Although it was undoubtedly done by some artificial process, yet it seemed quite natural.

Individuals of the Caffre tribe, from the east coast of Africa, were also met with; and it is said that there are many of them in Hindoostan, whither they have been carried by the English from Mozambique; but they are rarely met with so far east as Singapore. They resembled those seen by us at Rio, though we had no opportunity of identifying them by their tattooing.

One of the most amusing incidents that occurred during our stay at Singapore, was a visit to a ship of the king of Cochin-China, which we made by express invitation. The whole trade of Cochin-China is a monopoly in the hands of the king who owns the ships, which likewise compose part of his navy. They are built after the European model of some half a century back. The vessel that furnished it belonged to France, and was wrecked on their coast many years ago, after which missionaries and artisans were sent out by Louis XVI., who taught them many of the arts of Europe. The outward form of the old French ship appears to have been pretty well imitated, but the stern is more elaborately carved and ornamented with gilding. The internal arrangements also show a great variation from the model, and in them the notions of the Cochin-Chinese prevail, unmixed with those of Europeans. The two ships were about five hundred tons burden; they are very roughly built, have huge sterns, and exceedingly thick sides. Indeed, every thing on board is unsightly, and all the work is of the rudest descrip-

tion, giving no very high idea of the proficiency of the mechanics of Cochin-China.

These vessels have a middle-deck, which is pierced for guns. The cabin, into which we were shown, had a josh-temple, and with josh-sticks burning. There were two cabins; that under the poop had small rooms, and was very low between decks. There were no fixtures, but simply a mat to lie on. The binnacle is a bed of sand, in which the compass-box is set for security; and a number of small, coloured sticks were stuck into the sand, which were represented to be markers, by which the way of the vessel was noted. A manuscript chart, which the captain took great pride in exhibiting, was shown us. This was evidently a copy of an English one, but all the names were in Chinese. The crew had a decided Malay look, and were small men; they are in form stout, but are not athletic. There did not appear to be any mixture of races among them. As we passed around the deck, we observed a party of five or six of the men engaged in gambling with cards, in which they were so much engrossed, that they heeded not the command of their officers to desist and make room for us. This vessel was furnished with rattan-cables, which were exceedingly well made. The wheel for steering appeared odd, on account of its small size, and the helmsman sits when he takes his trick. On either side of the deck, just abaft the foremast, there is a cook-house, formed of a huge box of earth, about three feet above the deck, in which a few large stones are set to support their earthen cooking vessels.

The officers and men have but a small pittance of pay. The captain, for instance, I was told, received only three dollars a month. A supercargo or factor is appointed for each voyage, and is obligated to do all the business for his master, and take charge of the whole commercial enterprise without receiving any of the profits for the success of the undertaking; he is also held to be responsible, and his property is accountable likewise for any depreciation in the foreign market; and if any suspicions fall upon him of mismanagement, he is sure of the bastinado on his return. The consequence is, that the king of Cochin-China is a successful merchant, grows rich on his commercial speculations, and is always well served. The recompense of the factor is but a small quantity of rice.

Four or five of his ships resort annually to Singapore, loaded with sugar, coffee, ivory, and many other articles of less importance, in return for which they take British and India goods, fire-arms, iron, glassware, &c. I have been informed that his success in trade has been such that out of its profits within a year he has added a steamer of six hundred tons to his navy.

Almost every one has some idea of the external form of a Chinese junk; but the arrangement of the interior, although of great antiquity, was new to us all. From the appearance of every thing on board, the arrangements cannot have changed much in the lapse of many centuries. The junks are of various sizes: the three that were visited were from seventy-five to eighty feet in length, about twenty-two feet beam, and about eighteen feet high forward, descending in a curve to within three or four feet of the water amidships, and then again rising in a like curve to the height of twenty-

five feet. At the top of the stern is the poop-cabin, with accommodations for the master, his clerk, and the trader, in four small sleeping-rooms; under these are other cabins, with an eating apartment, and before this is a platform or small deck, from which the vessel is steered. The rudder is an extraordinary piece of wood, fully equal, in point of size, to that of a line-of-battle ship. While in port it is always unshipped, and drawn into the vessel on a small inclined slip or way. The junks have usually two large masts, with a jigger, and there are no less than three windlasses, which are used upon every occasion; without these the junks would really be almost unmanageable. In order to preserve the vessel dry, they have waistboards of solid thick plank, which are unshipped in port; these reach from the plank-sheer to the rail, and from appearances effectually answer the purpose for which they are intended. The cargo, however, was more interesting to us than the vessel: this consisted chiefly of teas and china-ware; the latter, to our surprise, we found neatly and carefully stowed in bulk in the hold. The lighter articles of Chinese manufacture are arranged about the vessel, and even hang over the poop and sides. The wooden anchors, cables, grass ropes, odd and curious paintings, the grotesque mode of external ornament, with the large eye on either bow in the colours of the rainbow, did not fail to attract our attention. We were also amused with the junk-like form of the tiny boat, but these, as well as the Chinamen themselves, are so well represented in Chinese pictures, that no one can be at a loss to conceive their peculiar form. Words fail to express the content and pride with which the Chinaman sits and enjoys his aquatic excursions; and though ridiculous in appearance, and ill fitted in every way to contend with the elements, yet there is something about the junks that commands a certain degree of respect.

The trade of Singapore, although it has but lately grown up, has nevertheless reached the large aggregate of 24,500,000 dollars. About one-sixth of this amount goes to Great Britain, and 600,000 dollars to continental Europe. There are no duties on imports or exports, and every vessel is left free to come and go as they please; all that is asked is of what the cargo consists, its value, and the size of the vessel. These particulars are published weekly in the only paper. Every thing is sold for cash, or on a very short credit, and all accounts are kept in dollars and cents. Perhaps in no other port is business conducted in so prompt a manner as at Singapore, and this has probably grown out of the transient character of the visitors of all nations, who come and go as they please, which makes it necessary to receive payment for the goods as soon as they are delivered.

From what has been already said, it will appear that very little of the importance of Singapore is owing to its own productions; yet there are many things shipped here that are the product of the Straits, or of the territory under the Straits Government, as it is called. Among these are pepper, cloves, sugar, nutmegs, coffee, and gambier, to which may be added the betel-nut. These products are procured from Pinang and Prince of Wales Island, and reach a large amount. Tortoise-shell may also be included in

this trade, for almost all that is taken in the Eastern seas is now brought to Singapore for sale; and it may indeed be said to be the chief mart of that article. Any attempt to give a catalogue of the trade of Singapore would fall short of the truth, for it may be considered as an entrepôt where all articles arrive and are distributed. The expenses of doing business are established and published in the gazettes, so that any one may inform himself of the charges he is liable to incur, and of the advantages it has in that respect over the other ports in the Eastern seas. What renders the traffic at Singapore still more convenient is, that almost every thing is sold by weight, probably because so large a proportion of the population is from China, in which country this method is habitual. In employing it, however, the articles from different countries are sold by the weight of the country whence they come. For instance, gold-dust being for the most part brought by the Malays, is sold by their weight, called a "bunggal," which is about equal to two ounces; rice, &c., the produce of Bengal, is sold by the bag, containing one hundred and sixty pounds, which is termed a "maund." The foreign business is generally in the hands of a few English houses, but the greater part of the mercantile class at Singapore are engaged as agents, or do a commission business, for various houses in Europe, Calcutta, &c. There is a branch of the India Bank at Singapore, which, however, is limited in its discounts and business; and there are besides a large number of insurance offices, in which policies may be effected on almost any risk. The capital of these companies is for the most part owned in Calcutta.

Although Singapore has fewer real advantages for trade than many of the ports around, yet it has now acquired the superiority, and holds intercourse with the surrounding countries.

Its trade with China has of late much increased, in consequence of the difficulties between that country and England, during which it was the only port where the junks were allowed to trade free of molestation. It in consequence became for the time a place of transshipment for teas and other Chinese articles to English vessels. For this reason, Singapore may have appeared to us a more active place of business than it would have done had the trade with China been no more than ordinary. No large commerce can well exist between China and Singapore alone, for the supplies the latter furnishes to that empire are confined to birds'-nests, biche-demar, tortoise-shell, &c.

Borneo probably furnishes the most valuable products that are brought to Singapore, and there are more than one hundred prahus engaged in the trade. These are for the most part navigated by Bugis from the island of Celebes, who may be termed the carriers of this archipelago. This people frequent all the ports on the south and southwest side of that great island, and are frequently employed by the rajahs or chiefs to conduct their trade with the other ports. The restrictions they are under in visiting the Dutch possessions, and the restrictive policy of the latter, which admits them to but one or two ports, has driven them to seek that of Singapore, though more distant. These prahus are said when trade or employment fails, to turn their attention to piracy, if a

favourable opportunity should offer; though no one seemed disposed to class them as pirates of the same character as the Malays, but rather to look upon them as generally inclined to be peaceable.

The island of Celebes sends to Singapore nearly a hundred prahus annually, and they also come from Flores, Timor, Amboyna, Sumbawa, Lubok, and even from Papua and Aroo. From the latter countries they bring the bird of paradise, so abundant in the market of Singapore. The prahus that come annually from these distant ports are not more than fifty in number.

With the ports of Sumatra and Java there is a great deal of intercourse, and I was told that the native vessels engaged in it, independently of those belonging to Europeans, amount now to some six hundred. These are of various sizes, and keep up a constant intercourse, some of them visiting the ports several times during the year. These arrive from both coasts of Sumatra, and belong to the rajahs or chiefs of small places, of which even the names are little known, and whose subjects are mostly engaged in piracy. The island of Bali likewise engages in this trade, through the agency of the Bugis. The products of the Malayan peninsula, and of all the ports of the Malacca Straits, are also brought to Singapore; but these may be termed incidental supplies, for they fluctuate much, both in quantity and value.

The most regular of all the trade is that with the islands of Rhio and Lingin, in the neighbourhood of which the Dutch have a factory. This trade is carried on in the sampan boats, and the people of these places prefer resorting to this free port to dispose of their produce, rather than sell it to the Dutch. The number of the vessels employed in this traffic was represented to me to be somewhere about five hundred. The articles brought from all these places are very much the same, and consist of pepper, rice, camphor, sago, coffee, nutmegs, oil, tobacco, wax, benzoin, seaweed, dragon's-blood, biche-de-mar, birds'-nests, tortoise-shell, diamonds, gold-dust, pearls, the pearl-oyster-shell, sandalwood, rattans, ivory, some hides, and articles of native manufacture, such as sarongs (worn as a wrapper, which come principally from Celebes), salendongs, and lacquered ware.

The foregoing detail exhibits a vast variety of articles of commerce, and accounts for the employment of the fifteen hundred, or two thousand vessels of various sizes, that are continually pouring into this mart. It may readily be imagined what a stir and life this commerce must create; and when it is considered that nearly all the various nations of the East resort here for the purpose of trade, it will not excite much astonishment that Singapore has grown up so rapidly in the face of older and longer-established marts, which it bids fair to surpass, both in wealth and importance.

The opium shops are among the most extraordinary sights in Singapore; it is inconceivable with what avidity the smokers seek this noxious drug at the shop windows. They then retire to the interior, where a number of sickly-looking persons, in the last stage of consumption, haggard, and worn down with care, are seen smoking. The drug is sold in very small pieces, and for ten cents enough to fill a pipe once is obtained. With it are furnished a pipe, a lamp, and a couch to lie on, if such it may

be called. The pipe is of a peculiar construction, and is in part of metal, having an interior or cup just large enough to contain a piece of the size of a pea. The opium is difficult to ignite, and it requires much management in the smoker to obtain the necessary number of whiffs to produce intoxication in one habituated to its use. The couch is sometimes a rude bench, but more often a mat on the floor, with a small raised bench. Each of these mats in the frequented shops is generally occupied by a pair of smokers, who have a lamp between them.

These shops with their inmates formed one of the most disgusting spectacles I saw during our extended cruise; although, to one who could be amused with human degradation, this sight could not have failed to afford pastime.

It was not difficult even for a stranger to distinguish those who have long indulged in this pernicious practice, from those to whom it is yet new. The eagerness with which the former sought the mat, seized the pipe, and inhaled the smoke, showed a nervous anxiety to reach that point where forgetfulness should come. This in the novice was but the work of a few minutes, while those whose organs had become accustomed would draw long whiffs and puff away until the weakened state of their lungs would betray them, and cause them to stop to renew their breath before they were enabled to accomplish their wishes. I learned that many of the old smokers found so great a difficulty in inducing the action of the smoke, that they were accustomed to have recourse to swallowing the drug itself. The Chinese only are addicted to this practice: the Gentoos and those of the Moslem faith look upon it with great horror and disgust.

The individuals whom I have described above are the wealthy, who can afford to smoke the drug as it is found in commerce. From the difficulty with which it burns there is a large residuum left, which is carefully taken out of the pipes, and sold to the less opulent, who in like manner smoke it, though without the luxury of mats and lamps. I was told that there is still a poorer class of Chinese, that again use the residuum of this second smoking.

The Chinese at Singapore possess every facility for full gratification in the smoking of this deleterious drug; for there is no interdiction to its introduction, and most, if not all the vessels engaged in smuggling it, resort there in their passages to and from Bengal, and many of them are owned or under the agency of the merchants of this place. It is not a little remarkable that even those who are engaged in the trade, condemn its immoral and hurtful results, while others at a distance offer many reasons in its defence. I must say that it appears to me truly strange that with the scenes that daily offer themselves in Singapore, before the eyes and under the cognizance of the governor and officers of the place, some steps should not be taken to put a stop to the practice altogether, instead of making it a source of revenue.

The population, from the most authentic returns, is in all about sixty thousand souls: of these forty-five thousand are Chinese, eight thousand Malays, seven thousand natives of India, and about one hundred and fifty foreigners; and only *one-tenth* of the whole are females.

On my arrival at Singapore, various reports were made to me of defects existing in the tender Flying-Fish. It was to be expected, after the arduous service she had performed; yet, having brought her safely thus far, I felt a natural desire to carry her home with us; and in this all the officers seemed to partake. But the idea of risking the lives of her officers and crew, after the disaster that had already befallen her sister craft, was not to be endured; and I saw that it was necessary to have a thorough examination of her before I ventured her in the homeward voyage. I therefore ordered a survey by the most experienced persons in the squadron, who, although they could not point out any conspicuous defects, were satisfied that from long and hard service she had become weakened in her frame, and that she would not only need much time, but a large expense, to place her in a fit condition to make the voyage home. I must say that even after I had received the report I still felt a strong inclination to persist in bringing her back to the United States; but my final decision was against it. The consul was therefore desired to advertise her for sale, and in the mean time all her stores and armament were removed.

She was, agreeably to the notice, sold at public sale for three thousand seven hundred dollars. To part with this vessel was unpleasant on many accounts; for she had been daily, for nearly four years, my first and last thought. The attachment I had felt for her was great; the efficient aid she had occasionally afforded in the performance of my duties, caused me to value her highly; and as a vessel of her class, she was almost faultless.

By the 25th of February, we had completed filling our water, which is here conveniently supplied by tank-boats; and having obtained for the passage home all the stores we needed, except bread, we made every preparation for sailing.

In consequence of the short supply of the latter article, I determined to touch with the Vincennes at the Cape of Good Hope; while the two brigs were ordered to stop at Rio Janeiro, for the same purpose, as well as to obtain some further observations, and additional specimens of natural history.

At five o'clock on the morning of the 26th, I took advantage of the land-breeze, and made signal to the Porpoise and Oregon to get under way.

CHAPTER XXXIX.

CAPE OF GOOD HOPE.

DEPARTURE FROM SINGAPORE—STRAITS OF RHIO—STRAITS OF BANCA—STRAITS OF SUNDA—INDIAN OCEAN—DEATH OF MR. VANDERFORD—VENDOVI'S GRIEF—ARRIVAL IN TABLE BAY—CAPE TOWN—GOVERNMENT OF THE COLONY—TAXES—BANKING—WINE TRADE—CATTLE—IMPORT TRADE—HOTTENTOTS—CAFFRE TRIBES—VISIT TO CONSTANTIA—ASTRONOMY AND MAGNETIC OBSERVATIONS—ASCENT OF TABLE MOUNTAIN—GREEN POINT—LIGHT-HOUSE—EXCHANGE—GARDEN OF THE BARON VON LUDWIG—CLIMATE OF THE CAPE—PHENOMENA OF REFRACTION—TENURES OF LAND—DEPARTURE FROM TABLE BAY—VOYAGE TO ST. HELENA—JAMESTOWN—VISIT TO THE TOMB OF NAPOLEON AND LONGWOOD—MAGNETIC OBSERVATORY—PLANTATION-HOUSE—DEPARTURE FROM ST. HELENA—PASSAGE TO THE UNITED STATES—ARRIVAL AT NEW YORK—CONCLUSION.

AFTER leaving Singapore, I determined to pass through the Straits of Rhio, a route which I deemed the shortest and best for vessels bound through the Straits of Sunda. We had light winds and rain-squalls at the entrance of the strait; but towards the afternoon we were favoured with the north-east breeze, which carried us rapidly onward. At night I anchored, wishing to examine more particularly the charts extant, and to make what corrections I might deem necessary.

The next morning at daylight we again resumed our route, but in consequence of fog were obliged to anchor off the Dutch factory at Rhio, where a fort is established. This was first occupied in 1824, after the cession of Malacca.

The island contains but few inhabitants, and those few are not inclined to come under the Dutch authority. From all I could learn, there is very little inducement for a vessel to resort here for trade. The island is considered extremely unhealthy for foreigners during several months of the year.

When the weather cleared off, we again passed down the strait, and on our arrival off the southern point of the islands, we steered for the east point of Lintin, which island we passed on the 28th, on our way to the Straits of Banca.

On the morning of the 1st of March, we approached the northern entrance of the Straits of Banca, and got a view of these low and uninteresting coasts.

The same afternoon, we fell in with a barque, under Dutch colours, which refused to answer our hail as we passed; we immediately wore ship, and fired a shot; upon which they let fly all their halcyards and sheets. A boat was sent on board with an officer, who discovered that she was manned by Malays, and that no one on board could speak English; however, he managed to understand that they were from Palambam, Sumatra, and bound to Singapore. Soon afterwards, we saw the Dutch establishment of Mintow; it is situated on a knoll, at the northern end of Banca, and had the Dutch flag flying over it. The greater part of Banca is low land; the northern end particularly so. There are, however, a few detached hills, of considerable altitude, which serve as sailing-marks during the passage through the straits. The southern end of the island rises, and appears to be of a different formation from the other parts, as its soil is thickly wooded. In the forest were seen numerous clearings, where people had been and were then burning charcoal, to obtain fuel for smelting the tin ores. The principal mining district lies towards

the southern end of the island, in the swampy flat land at the foot of the isolated hills before mentioned. The ore is usually found at the depth of from six to twenty feet from the surface, in layers that run horizontally for two or three miles; these vary in thickness from six to twenty inches, and consist of heavy granulated particles, of a dark metallic lustre, mixed with white sand. The strata above the vein consists of vegetable mould, red and white clay, intermixed with pebbles of white quartz, and white sand, like that which is found with the metal. A stratum of steatite is said to be found underlying these ores of tin.

The process of working these mines is exceedingly rude; both Malays and Chinese are employed in them, but the latter are preferred on account of their greater perseverance and industry. I was told at Singapore that the amount of tin derived from Banca by the Dutch was not half so great as that obtained while it was under British management, or that it is still capable of yielding. The ore is washed after its removal from the veins, which separates the earth, and leaves only the metal and stones; the last are separated by hand, and the metal is then smelted: to effect this, huge piles of alternate layers of ore and charcoal are formed; the fused metal escapes into a hole dug in the ground, from which it is dipped and poured into moulds, forming, when cool, the tin of commerce. Tin ore is found at Banca in great quantities, but its quality is inferior to that obtained from other places; and it rarely yields more than sixty per cent. of pure metal. The process of smelting is but seldom performed, generally not oftener than once or twice a year. Rude bellows of various forms are used in kindling the smelting fires; some of these are composed of large wooden cylinders with moving pistons, which give a strong continuous blast; others are nothing more than a bamboo tube, through which the breath is forced upon the flame. The process for working the mines and extracting the metal from the ore, are similar in all the mining districts, and differ but little from those employed when the mines were first opened.

The Sumatra shore of the Straits of Banca is low, and appears to be covered with a dense forest. During the night we were visited by a heavy storm of thunder and lightning, with much rain. The next morning being pleasant, we got under way again, and passed rapidly through the straits; the southern outlet, however, called the Lucepara Passage, was not attained until nearly dark, and before reaching it we crossed many shoals, so near the surface as to leave but little water under our keels. An English vessel in advance of us hoisted a light after dark, and by taking it for our guide, we succeeded in passing through safely. This vessel was soon overtaken by us, and proved to be the barque Java, Lewis master, thirty-eight days from Batavia, and bound to Singapore. Having lost twelve of her crew by dysentery, and but few of the survivors being able to perform their duty in consequence, she was returning to Batavia. The surgeon was sent on board, and the necessary medicines, &c., of which they were in great want, were supplied.

On the 4th of March we arrived off Hout's Island, at the entrance of the Straits of Sunda. The wind dying away, we were left at the mercy

of a strong current setting in towards the island. We anchored to avoid danger, and lay until the turn of the tide; we afterwards passed round Zutphen's Island and Hog Point, anchoring for the night off Rajah Bassa.

As far as my experience goes, I can testify that Horsburgh's directions for the Straits of Sunda are safe and good, although perhaps not the most suitable for our navigators, for he makes the safety of the ship his principal aim, and gives directions so to navigate a large class vessel as to insure it; whilst my countrymen, although they always read him, are not disposed to pursue his directions exactly, believing that in following his advice more time is lost than a regard to sufficient safety demands. Although such may be the case, it ought not to lessen the gratitude that navigators owe him for his East India Directory, a contribution to nautical information that cannot well be surpassed, either for general accuracy, or as regards the great number of satisfactory directions that it contains.

On the morning of the 6th, we again got under way, the men exhibiting their joy in taking this first real step on their homeward course, by running up the anchor quickly to the bows, and by the alacrity with which they performed their other duties. With a light wind from the eastward, we stood into the Indian Ocean, between the islands of Pulo Bessy and Crokatoa; the day was a delightful one, and being Sunday, when no unessential duty was performed, there was leisure to enjoy it. After divine service, the wind shifted to the northward and westward, and towards night we experienced severe squalls from that quarter, accompanied by lightning and torrents of rain. In the intervals between the gusts, the wind blew freshly, and on the morning of the 7th we found ourselves fairly launched on the blue waters of the ocean, pursuing rapidly our homeward course.

We were now truly on our route for home, and finding that the brigs detained us by their slower rate of sailing, I determined to part company with them, having some days previously given them directions what course to pursue in such an event. We accordingly made all the sail that could be carried, and soon left them behind us.

On the 23rd, Benjamin Vanderford, master's mate, died. During the cruise, I had often experienced his usefulness, and now regretted his loss. He had formerly been in command of various ships sailing from Salem, and had made many voyages to the Feejee Islands. During our stay there he was particularly useful in superintending all trade carried on to supply the ships; he always proved himself a good officer, and was one for whom I felt a great regard. He had a presentiment of his own death, and had long been impressed with the opinion that he would not survive to return to his country. His death produced a great impression upon Vendovi, for Mr. Vanderford was the only person with whom that chief could converse, and a sort of attachment had sprung up between them, arising from the officer's long residence with Tanoa at Ambau, and his familiarity with the manners and customs of the Feejee Islands. Besides, Vendovi looked forward to his becoming a protector on their arrival in the United States. While conversing with Mr. Vanderford, some time before his death, he expressed his willingness to take charge of Vendovi, and to befriend him on our

arrival at home; for, although the Feejeeans had despoiled him of all his property, they had nevertheless saved his life, and for that, or rather for refraining from devouring him, he felt some gratitude, and would have shown it to Vendovi.

Poor Vendovi could not be persuaded to look at his friend's corpse; his spirits evidently flagged; a marked change came over him; and he no doubt felt as though he had lost his only friend. His own disease, henceforward, made rapid strides towards a fatal termination, and he showed that such was the case by his total disregard of every thing that passed around him, as well as by his moping, melancholy look. On the 24th, the remains of Mr. Vanderford were committed to the deep, with the usual service and honours. The same day we experienced a current to the north-west; and the crew, after having been for ten days afflicted with colds and influenza, began rapidly to recover.

On the 12th of April, we arrived off False Bay. The temperature of the surface water was reduced to 64°, and the current was setting us rapidly to the north-north-west. The fog and mist that now prevailed, prevented my observations for ascertaining the rate of the current from being as accurate as I desired; the results, such as they were, gave it a velocity of more than a mile per hour.

On the 13th, no observations could be obtained on account of the fog and mist; and our situation became rather a perplexing one. On making trial of the current, we found that it was drifting us to the north at the rate of eighteen miles in twenty-four hours. Soundings were obtained in eighty-five fathoms. The temperature of the surface water fell to 54°. Towards evening it cleared up, and our situation was obtained by bearings, which placed us off Snake's Head, about twelve miles to the southward and westward of the Lion's Head. Believing that my only chance of making Table Bay was by keeping as close to the shore as possible, I kept the ship on soundings during the night, and at daylight stood in through a thick fog for what I felt sure must be the position of Green Point. While under way, we fell in with a fleet of small fishing-boats lying at anchor. Their crews were catching a species of bass, as fast as they could haul in their lines. Immense numbers of birds, such as albatrosses, petrels, and gulls, surrounded the boats, and were feeding on the small fish and offal thrown overboard from them. The fish caught here are salted, and being afterwards dried, furnish no inconsiderable portion of the food of the lower orders of the colony. One of the fishermen was desired to come on board, and after he had satisfied me that some reliance might be placed in him as a pilot, he was retained with us. Under his guidance we stood on, and as the fog began to break away reached our anchorage, having passed close to the lighthouse and Green Point, the western point of Table Bay. The captain of the port, Commander Bance, R.N., boarded us soon after we had anchored. I was glad to see this gentleman, to whom I felt under obligations, for civilities and kindness shown me some eighteen years previously, during a cruise off the coast of Peru.

An officer was despatched by me to call upon, and report our arrival to Sir George Thomas Napier, governor of the colony.

The falling of the ball at the Royal Observatory

afforded us an opportunity for comparing the time as shown by our chronometers with that of the Cape. Of this we took advantage, and found that our time-keepers had performed well.

The view of Cape Town and its vicinity from the anchorage, is remarkable, and the whole seems novel. Directly in its rear rise the perpendicular sides of Table Mountain, while on either hand are seen the crags of the Lion's Head and Devil's Peak; the former usually overhung by a large cloud, which often covers the whole town with its broad shadow. These mountains are composed of a dark reddish-gray sandstone, and excepting immediately at their base, and close to the rear of the town, show but little signs of vegetation. Here and there pretty straw-coloured cottages are scattered among the foliage.

The anchorage, which is at some distance from the beach, was, at the time of our arrival, occupied by a large number of vessels, which somewhat surprised me, for at this season of the year the bay is often visited by northers, which have in former years done much damage, and caused the loss of many lives. I was informed, however, that but little apprehension is now felt on their account, for ships are at the present time well provided with chain cables, and can hold their ground. Two quays extend from the beach into the bay, affording facility to lighters to discharge and take in their cargoes at all times of the tide.

The town itself shows many traces of its original occupants. The houses, with their prim little stoops, porches, and gables to the street, reminding me strongly of those built by the early settlers of New York and Albany. But few of the streets have any sidewalks, and many of them are not paved at all, causing them, in consequence of the arid climate, to be ankle deep in dust. Nine-tenths of the inhabitants still retain a Dutch look, and many of them are unable to speak any other than their original language, while to a large number of them the epithet "boors," so commonly bestowed, is quite applicable. The town is laid out with regularity, many of the streets crossing each other at right angles, and some are of respectable width. Rows of oak, poplar, and pine trees line the sides of the principal avenues. Many contain shops, which are well supplied with the usual varieties of European goods. Roses and vines are cultivated in front of the houses, and their blossoms and fruit, although within reach of all, are respected. The houses are painted of various colours, without any regard to taste, and are of a clean though antiquated appearance. No two of them are alike, yet their styles are so marked, that the country whence their builders came may be judged with tolerable certainty from each. Badly-painted signs are as numerous as in our own country, and vases pointing in every direction surmount the gables. The Dutch costume still prevails among the inhabitants, and afforded us much amusement. In the schools the Dutch language is still taught; though in many the English is a branch of education. Considering the number of years that this colony has been under the British dominion, it surprised me to find that a knowledge of the Dutch was much more necessary than that of English, while dealing with the inhabitants.

There are two hotels in Cape Town, the Royal George and the Victoria, both kept on the English

plan. The former we frequented during our short stay, and found it comfortable, although far inferior to what might have been expected from the size of the town.

The Cape of Good Hope was originally settled by the Dutch in 1652; captured by the British in 1795; restored again after the peace of Amiens in 1802; again taken possession of in 1806; and finally ceded to Great Britain in 1815. During its occupation as a Dutch colony, it had twenty-eight governors, and since it has been under British rule it has had eighteen. By this it will be perceived that the changes in its administration have been frequent, and what might naturally be expected to follow, the policy and character of its governors have been vacillating. It has been generally ruled very much after the ideas of those who presided for the time being. The government is nominally vested in the governor, and an executive and legislative council, who are all appointed by the crown, or with its approbation and consent.

Under this system of government it has been the misfortune of the Cape colony to be placed; and the advantages it has possessed under some, have been counterbalanced by others, and not unfrequently the salutary regulations made by one, have, without any apparent reason, in the minds of the colonists, been annulled or set aside by others; which, of course, has tended to foment discord and produce a feeling of opposition to British rule: this has prevented the advancement of the colony, and retarded its usefulness by giving license to crime that otherwise would not have existed.

Of late years, however, although the government still remains the same, yet they have been more fortunate in the individuals who have presided over it. In regarding the British colonial system, it appears remarkable that the British nation, generally so mindful of political rights, should place it in the power of distant governors to rule their colonists with almost despotic sway, and their growth and rise to be at the option of any one individual, who may arbitrarily crush or paralyse the efforts of industry and the development of resources. Many of the inhabitants of the Cape complain of this polity, but look forward to the adoption, in the course of time, of an elective legislative body, which will give them some share in the government, and prevent not only misrule, but undue taxation and a misapplication of its funds in the various improvements which government may authorize.

The executive council consists of seven members, including the governor, who is the presiding officer; and the legislative council of thirteen, composed of the members of the executive council and five additional unofficials, who are themselves residents of the colony, named by the governor, and appointed by the crown.

The same kind of government may be said to exist now as in New South Wales, of which I have had occasion to speak when treating of that colony; and it is thought to be equally inefficient, and to require reform.

One of the circumstances that had agitated the respectable portion of this colony, has been the publication of the authentic Cape records. Many entered warmly into the scheme at first, but it was soon perceived what the developments were likely to be, and that many who had played a conspicuous

part in the history of the colony, were about to have all their public as well as private acts brought to light; and this has raised a strong opposition to the continuance of the publication. The editor, Donald Moodie, Esq., in the year previous to our visit, made an appeal, stating the difficulties that he had encountered, and adding, that he would in consequence be obliged to give up the task. Some of the numbers were sent me by a friend, which I took the more interest in perusing, as exhibiting the history of the tribe of Hottentots, which may be now deemed almost extinct, so far as the civilized and settled portions of the colony extend. Many disreputable actions on the part of all those who have been engaged were here exposed, and I am not at all surprised that the official incumbent, as well as others, should exert all their interest to effect its suppression; however, as many of these statements are now before the public, it would be desirable that they should be gone through with, that there may be a full understanding of the transactions that have now come to light, in order to have a full knowledge of the state of the affairs of the colony, as well in relation to the governor as to those who have been employed under the governmental authority, whether missionaries or officials. Like the secret details of all colonies, they will show a great deal of misrule, inhumanity, and want of system, in the conduct of affairs. The opposing interests are such that the whole will probably be exposed. The colonists, on the one side, feeling themselves unjustly charged with cruelty and persecution of the unfortunate natives, desire that all the investigations that have taken place may be brought before the public; while, on the other hand, those who are or have been in any way connected with the government, are, from all accounts, disposed to the suppression of this documentary evidence. Were I desirous of showing the dark side of the picture, I might insert here a few extracts that would startle the many who now boast of their philanthropic actions, and are disposed to condemn the actions of others in regard to slavery, who are, in comparison, far less guilty of wrong to the interests of humanity. Those who are disposed to look further into these subjects, may consult "Specimens of the Authentic Records of the Colony of the Cape of Good Hope, relative to the Aboriginal Tribe; together with an Inquiry into the Justice and Expediency of publishing the remaining Portion of those Records, by Donald Moodie: Cape of Good Hope, 1841."

On the morning after my arrival I called on his excellency the governor, at the government-house, where I had the honour of an introduction to Sir George Napier. His reception was kind and frank. With him I passed a pleasant half hour. Sir George is one of the heroes of the Peninsular War, and bears the marks of his activity in those well-contested conflicts, in the loss of an arm. He showed me over the apartments, which, however, are not now occupied, as he was living at his country-seat. They appear convenient, and afford from the windows a view of the government demesne, which is quite pretty, planted as it is with fine old oaks; part of it is kept as a public walk, which the citizens frequent on holidays in large numbers. The Cape station has never been a popular one, from the want of society; but of late years very many persons from India have made it a resort for the reco-

very of their health, and in a measure supplied the deficiency in this respect. The offices for the transaction of government business are in the immediate neighbourhood of the government-house, and within the precincts is also a college for the education of the youths of the colony; it has several professors, but I understood all those who desire to have their children well educated send them to England.

The barracks are extensive, and well built, and have a large area in front as a parade-ground. There are several other buildings going up, for the accommodation of the troops, and hospitals for the sick, all handsome and well situated. I regret to say that as much cannot be said for the town prison, nor for the buildings appropriated to the police department, custom-house, and harbour-master's department: all these bear the marks of what Cape Town was, and stand in strong contrast to the modern improvements.

Formerly the municipal government of Cape Town consisted of a president, four members, the town treasurer, and a secretary. The president was elected for two years, and was succeeded by the senior member of the board. This board was dissolved, apparently for no sufficient reason, for every one was satisfied with its usefulness in controlling the various duties appertaining to a corporate body.

The town is now divided into twelve districts, and each district into four wards, over each of which there is a commissioner, and four ward-masters, chosen by the people. The first form the upper board, and the last the lower, and each have a chairman and deputy chairman, who, among other duties, act as appraisers of property, on which the taxes are assessed equal to three-quarter pence in the pound. By the statistical tables published, it appears that the valuation of property of Cape Town reaches the sum of one million six hundred and thirty-six thousand pounds.

The municipal regulations now seem to be excellent, and are more or less under military control. The police has been organized on the plan of the police of London, and its efficiency is highly spoken of. From all the information I could gather, crime has very much decreased in both the Cape district and colony. The statistics of crime show but few cases. The quarterly sitting of the grand jury took place during our visit, and there were but six presentments, viz., one for culpable homicide, two assaults with intent to harm, one robbery, one theft, or receiving stolen goods, and one fraudulent insolvency; and this within a district containing fifty thousand inhabitants.

There are great complaints about the administration of the laws of the colony; the English system now prevails so far as to allow counsel to the criminal. The trial by jury is established; seven of the twelve must be present, and it requires a majority of these only to convict; if more than seven are present, and the jury are divided equally, the prisoner is acquitted. The Dutch criminal code formerly in force has been modified by the English, so far as respects some punishments; torture, for instance, has been done away with. The crimes of murder, high treason, counterfeiting, and rape, are punished with death; thefts of large amount, assault, robbery, and the like, are punished by transportation; while, for other and

minor crimes, the prisoners are employed as convicts on Robben's Island, working in the quarries; for less offences, flogging and imprisonment are inflicted.

On the other hand, the English civil law has been modified by that of the Dutch: this has increased litigation, in consequence of the absurd manner in which boundaries were formerly laid off; such, for instance, as estimating by the distance a man could walk in an hour, or canter with his horse.

Another source of complaint, which amused me not a little, was the administration of justice by a supreme court, over which a chief justice and two puisne judges preside; two of these are English, while the third is a Scotchman; the consequence is, the English judges administer the law after the English code, while the Scotch judge follows that of Scotland, which often renders the decision diametrically opposite: and it is impossible for the advocate or client to know by what judge or law his case is to be tried. It was said, I know not with what truth, that high connexions have been considered more suitable qualifications for the office than legal knowledge. The salaries do not exceed fifteen hundred and two thousand pounds annually.

There are in the Cape colony eight districts. Each of these is governed by a commissioner or civil magistrate, who is assisted by justices of the peace. These districts are again subdivided into veld corneties. The corneties are governed by a petty magistrate, who is called a veld cornet. These extend over a distance of about twenty miles, and under him is organized the militia force, in case it should be called out. It is the duty of the latter to meet the requisitions of the higher government officers for supplies, &c. There is little liberty allowed the inhabitants of the districts, who are restricted from all acts that might in any way tend to give expression to their sentiments; not even are they allowed to hold a public meeting, and all kinds of prosecutions are referred to the capital for final decision. At the Cape they have a vice-admiralty court for the trial of offences on the high seas. The commissioner of the district, and others holding office, are appointed under the great seal, who are each empowered to grant licenses of marriage, and do other civil acts, and have associated with them the justices of peace, as well as the veld cornets.

The taxes are represented as being onerous; there is, for instance, a capitation tax of six shillings annually, on all free males and females, above the age of sixteen. Those in the employ of the government are exempt, as well as the servants attendant on them. Horses and carriages of all kinds are taxed from two to four pounds. There is a tax on all incomes exceeding thirty pounds, of two per cent.; in addition to these are the stamp duties, water taxes, house taxes, auction duties, market duties, tithes on wine and grain, in short, on every thing that is sold; all papers executed, transfers of property, promissory notes, bonds, and licenses of all kinds; indeed, it would be difficult to mention any thing exempted from the all-pervading taxation which here prevails. On inquiring the cost of articles, it is invariable to account for the price, by adding that the article is taxed. The people are even taxed for permission

to leave the colony; and I was told it was necessary to pay a tax to take a bath.

The whole revenue raised amounts to 130,000/., and the expenditures do not exceed 125,000/.

In order to lessen the weight of the taxation, it was in agitation at the time of our visit to increase the duties on imports, which are about three per cent. ad valorem, on English articles, and ten per cent. on foreign goods.

The circulation is a paper one of the denomination of rix-dollars, valued at one shilling and sixpence. There are no notes less than twelve rix-dollars, equal to a pound. The monetary concerns of the colony have undergone many vicissitudes, and numerous experiments have been made, all tending to produce a want of confidence. Government, until within a few years, had the entire control of the discount banks, and through them possessed a full knowledge of the affairs of men in business, and it is said did not fail to use it in an arbitrary manner, producing revulsions in the monetary affairs of the colony that were highly prejudicial to the commercial community, causing much distress, and in some cases ruin, of which many feel the effects to this day.

This state of things gave rise to the establishment of banks exclusively under the control of private individuals: there are two of these corporations, bearing the title of the "Cape of Good Hope Bank," with a capital of 70,000/., and the "South African Bank," whose capital amounts to 100,000/.; the capital of each is all paid in, and no part of it can be withdrawn. The latter is not a bank of issue. A general statement of their affairs is annually made to the proprietors. Interest is paid on deposits remaining longer than a certain specified time. Inviolable secrecy is observed with regard to individual accounts, and each person connected with the institution signs a promise to that effect. These banks afford every facility within the bounds of prudence to those dealing with them, even carrying the spirit of accommodation so far as to keep early hours for the benefit of the agriculturists who frequent the market.

This new system is found to work admirably, and pays handsome dividends to the proprietors. It gratified me to learn that the public of Cape Town is chiefly indebted to Isaac Chase, Esq., the United States consul, for the adoption of this banking system. I had many interesting conversations with him on the subject, and also conversed with others, inhabitants of the colony, who expressed themselves highly pleased with the success of these institutions, while at the same time they acknowledged their obligations to our commercial agent.

Wine is the great staple of the colony; but many of the vine-growers have been ruined, in consequence of the vacillating policy pursued by the home government, with regard to this branch of industry. Trusting to the promises made by the government, a vast amount of capital was invested in the business, and the annual production was in a short time tripled. This state of things continued for about ten years; but in the year 1825 a change of policy took place, and the protection was diminished more than one-half; and at the same time a further reduction was proposed in the bounty. As a natural consequence, a depreciation in all the wine estates took place, and the loss of much property ensued. This was made

more unpleasant to the Cape colonists by a proposition to put a duty on Cape wines, that would have the effect of placing them at a higher duty than those of foreign wines. The colonists are still very sensitive upon the subject of wine, and the treatment they have received; not only have they to complain of bad faith on the part of the government, but the constant efforts of others to decry their wines, some of which are produced of as fine a quality as those in any other part of the world; but there is some foundation for the disparaging reports that have been circulated, for quantities have certainly been sent abroad that had been very much adulterated.

The Cape colony, both as to soil and climate, is well adapted to the raising of all descriptions of wines, from the light German and French, to those of Madeira and Sherry.

In consequence of the reverses the colonists have met with in the wine trade, they have begun to turn their attention to the rising of sheep; the colony has been found to be well adapted to those producing fine wool, and the investments that have been made in them bid fair to be profitable.

Wheat and maize are also cultivated, particularly on the mountains near the Cape, where these grains grow in great perfection, and are raised in sufficient quantities to meet the consumption of the colony, and to be exported in considerable quantity to the Mauritius. The wheat now used is of a hard and flinty kind, and effectually resists the attacks of insects, as well as the rust, which were formerly troublesome.

The other chief productions are fruit, oil, and provisions.

One great obstacle is opposed to this colony ever becoming a great producer of wool, and that is the immense distances and the almost total want of communications. So bad are the roads and so great the hindrances, that the wonder is, not that there is so little internal trade, but how transportation is effected at all. Were it not for the energy and perseverance of the early colonists, and the hardy breed of cattle that they possess, communication between distant parts of the colony would be nearly impossible. Some opinion may be formed of the state of the roads and the difficulties to surmount, by the fact that fourteen pair of oxen are frequently attached to a small wagon.

The ox used in Africa seems to me to be of an entirely different breed from the animal we are accustomed to see in our country. Their legs are much longer in proportion to their bodies, lank and bare bones, with immense horns; and their gait, instead of a slow walk, is often a trot.

The whole of the foreign trade of the colony passes through Cape Town. The value of imports is estimated at one and a half million sterling, and that of exports amounts to upwards of a million. The vessels engaged in this trade number about six hundred, whose tonnage amounts to one hundred and eighty thousand tons. The total revenue from customs, in the year 1840, was forty-two thousand eight hundred and seventy-seven pounds. The exports consist of wine, wool, ivory, whale-oil, hides, tallow, and aloes. These are either brought to Cape Town from the interior in wagons, or in small vessels

from Algoa Bay. They are sold by auction, in the market-place, every Saturday. This mode of effecting sales is almost universal. The services of auctioneers are of course in request, and in addition to their legitimate trade they receive deposits and make advances on merchandize committed to their charge. The government taxes on sales by auction amount to a large sum, and no article can be sold unless a tax is paid; for any infraction of this law there is a heavy penalty, to be collected by the market-master, who is appointed by the government, and who superintends the collection of the dues according to a tariff which is published.

There is a great want of labourers in the colony; and since the abolition of slavery, this scarcity has very much increased, for it is found that those who have been manumitted are not disposed to work more than is necessary to provide themselves with food. The attempt has been made, and arrangements I believe were in progress, or contemplated, to bind as apprentices the captured slaves brought into the island of St. Helena, to those who were willing to receive them, at the Cape of Good Hope. The governor of St. Helena, Colonel H. Trelawny, was well disposed to this plan, and it was understood was co-operating with the authorities of the Cape to carry it fully into effect. Five years is to be the term of apprenticeship. However much the authorities incline to this plan, the wisdom of it is much doubted by a large number of the inhabitants of the colony, who allege, that although it may answer the purpose of giving relief, yet this benefit will not be permanent, and in a few years they may be overburdened with a population of blacks, who will be little inclined to labour, and may be a great impediment to the introduction of a class of free labourers, who might be permanently beneficial to the towns as well as to the interior.

In the inhabitants of Cape Town, although one sees a great variety of costume and figure, yet a true Hottentot of full blood is said to be but rarely met with. Some, indeed, were pointed out as such; but, although they seemed to have the distinguishing marks that are generally impressed upon us as characteristic, yet on further inquiry they did not prove to be really so.

The men are represented as being very much attached to their sheep-skin cloak or caross. Those that we saw were remarkable for very high and prominent cheek-bones and a sharp chin; they are not much inclined to steady employment: the attending of cattle, and the indolent and wandering life in which they pass their time, suit their disposition. They at times hire themselves out to the farmers, receiving cattle as wages. In the colony they do not bear a very high character for honesty and faithfulness. They are expert drivers of wagons, but are otherwise careless and inattentive. They are deemed an improvident race, though there are some instances of their showing great attachment to individuals who have treated them well. Their numbers now are variously stated; but little dependence is to be placed on the accounts given, as is evident by their ranging from ten to thirty thousand.

Upwards of thirty thousand slaves in the colony have been manumitted; but the success of these as free labourers is by no means encouraging. The

cooleys or bearers have regular employment, but the great majority of these are Malays or people from India.

I had the pleasure of becoming acquainted with Mr. Thompson, the intelligent African traveller, to whom the world is indebted for his interesting accounts of the Bushmen, and the chief knowledge we have of the interior of the colony. We are indebted to his exertions, through the liberality and joint action of some gentlemen of the Cape, for the many attempts that have been made to penetrate into the interior of Africa. When the difficulties and perils of such efforts are duly considered, it is not surprising that so little success has been met with in the various expeditions undertaken with this view. To those who would wish to seek adventure, the exploration of Africa offers at present a wider and more novel field than any other portion of the world.

The colonial government has of late years had much trouble with the Caffre tribes on the eastern limits of the colony. These have frequently made incursions, and driven off the cattle of the settlers, in revenge for the injuries they have sustained from the whites. The usual result is taking place; here, as elsewhere, civilized man is driving the savage before him, and occupying their hunting-grounds for permanent agriculture. The missionaries have in some cases pushed their establishments among these savage races, and from them the accounts of the Caffres have been mostly derived. Their appearance as well as character seem to indicate a totally different origin from the negro and Hottentot tribes. One of the marked peculiarities about them is that they avoid marrying the women of their own tribe, preferring to purchase wives from their neighbours, for whom they barter their cattle. Tamboukie women are preferred, although they are described as very ugly, being short, stout in the body, and having strong muscular limbs.

Those who have visited the country of the Caffres, describe them as extremely hospitable, and very cheerful in their dispositions. They mostly go naked, particularly during the heat of summer, though they wear the caross of skin in the winter. Their arms consist of the spear and club, with a shield of bull's-hide to protect the person. Their principal food is the milk of their herds, which they value beyond any thing else: they are a pastoral people, and the cattle-fold is considered the great place of honour, so much so that their chiefs are always found to occupy it. They have of late years obtained many horses; formerly they used the ox for riding, and this animal is said to have been even trained by them for the race.

The part of South Africa occupied by the Caffres enjoys a delightful climate, and they, consequently, need but little protection from the weather; and their huts are rudely constructed.

Of late years the settlers at Port Natal, on the eastern coast, who are surrounded by the Caffre tribes, set themselves up as a sort of independent community, believing they were beyond the limits of the colony; they enacted laws and regulations, issued their declaration of independence, invited settlers, and for a time committed many atrocities on the Caffres. The Cape government, deeming it was advisable to check this disorderly spirit, sent

an expedition to assert their proper supremacy. Troops were proceeding to Port Natal at the time of our visit.

During our stay we visited, as all strangers do, the estate of Constantia; it is situated about thirteen miles from Cape Town. There are three small estates that bear this name, viz. High, Great, and Little Constantia. The country we passed through, although barren and sandy, was apparently well settled: the village of Wynberg is the residence of many persons who come here to enjoy the delightful air that generally blows from the eastward; most of the residences are pretty cottages, and some have the appearance of handsome villas; they all have an air of neatness and comfort about them. Oaks and the pine are almost the only trees met with, and one is somewhat surprised that even these should be found; for the country is, to appearance, a barren waste, and many miles of it are quite unproductive for agriculture. The scarlet heath, blue oxalis, and the yellow composite, not only enliven this waste, but give it somewhat the character of the flowery prairies of Oregon. The sandy soil looked like the sea-shore, and bears indubitable marks of having been once covered by the ocean.

The estates of Constantia lie east of the Table Mountain, on False Bay, and from their peculiar situation are adequately watered by the mists condensed by that lofty mountain. The soil of these estates is far from being rich, but is rather a light and in some places a gravelly soil. The grapevines lie for the most part on the slope to the south-east, while some are situated on the low lands, which are carefully ditched to preserve them dry. They are divided into fields of some four or five acres each; the grape-vines are planted in rows four feet apart, they are never permitted to grow higher than three feet, and the whole is kept free from grass and weeds. In the spring, the vines are pruned; the grapes come to maturity in April; while they are growing, all unnecessary leaves and sprouts are removed, to give free access to the sun and air, and full advantage of the growth of the parent stock.

The grapes are allowed to remain on the vines until almost converted into raisins: they are then carefully examined, and all the decayed and bruised ones removed, before being gathered. The same process is used for expressing the grape here as at Madeira; but they have in some places advanced a step, and use the screw-press. The buildings for the storage of the wines are of one story, and arranged into three apartments; two of these are appropriated to the manufacture of the wine, and the third to that which is kept ripening for sale. The wines are of four kinds, Pontac, Frontignac, and the white and red Constantia. These are named in the order of their celebrity and price, which is usually a fixed one: the wine here is sold by the aam and half aam, equivalent to a barrel and half barrel; the cost for the last quantity is one hundred dollars for the first kind, eighty-five for the second, seventy-five for the third, and sixty for the fourth. To L. V. Renen, Esq., the proprietor of the High Constantia, we are indebted for many attentions. The grounds of Constantia were ornamented with some plaster statues of Hottentots and Caffres, which were said to represent the true type of these natives.

I paid a visit to the Cape observatory, famous from the labours of Sir John Herschell, on the southern constellations. It is now in charge of T. Maclear, Esq., who was at the time of our visit absent, being engaged in the measurement of an arc of the meridian. His assistant Mr. Smyth, and Lieutenant Wilmot, of the magnetic observatory, showed us the instruments. Lieutenant Wilmot has four non-commissioned artillery officers for his assistants. The day of our visit happened to be term-day, when an almost uninterrupted series of observations are taken; our stay was therefore but short, as I was disinclined to interrupt the constant duties of the observers. During our visit at the observatory, the weather was beautifully clear; no clouds were to be seen except over the Table Mountain, and objects viewed across the sandy plain were much distorted by refraction.

The botanists attached to the expedition attempted, during our stay, to ascend to the top of Table Mountain; but having taken a path different from that usually pursued, they were arrested by the perpendicular wall when about six hundred feet below the top. A great collection of botanical specimens amply repaid them for their disappointment. They visited the valley between Table Mountain and the Devil's Peak, and found it to consist of a dry spongy soil, densely covered with rutaceæ, intermixed with low bushes of heath, thymelaceæ, diosmas, and compositæ, having a close resemblance and analogy to the upland bogs of New Zealand.

The drives around Cape Town are pleasant; the one to Green Point is the most agreeable: this is a straggling village, with the houses having pretty gardens in front, laid out in the English style: the distant view of the ocean, with the heavy surf breaking upon the rocky coast, are fine objects to seaward. The sides and tops of the hills in the rear are bare of trees, but the roads are lined with cacti of large growth, giving to the scenery a decidedly tropical character. Green Point has a municipal government, and elects its commissioner and ward-masters in the same manner as Cape Town. The light-house is within this district: it is quite unworthy of the name, being decidedly the most inferior British establishment I have seen. This surprised me the more, because there is here a great necessity for a brilliant light.

There is a commercial exchange at Cape Town, possessing a public library, consisting of about thirty thousand volumes, and containing a reading-room, as well as a large hall, which is used for the public meetings and festivities of the inhabitants.

Different sects of Christians are vying with each other, to carry civilization and the Gospel to the tribes in the interior; but, as usual, there are many who deny the purity of their principles, and spread scandalous reports concerning their operations.

The walks near the town are pretty, and kept in neat order. One that leads along the brook in the rear of the town, whose banks are occupied by hosts of washerwomen, is peculiarly picturesque; as soon as you ascend to the top of the hill, you overlook the town, bay, and shipping, and gain a view of the sandy plain and distant mountains, with Robben's Island and Green Point in the distance.

Among the objects of interest at the Cape, is the

Botanical Garden of the Baron von Ludwig. To his liberality we are much indebted for plants and seeds; and in fact every thing that our botanists desired was placed at their disposition. The garden is surrounded by a brick wall, and situated near the foot of the Lion's Rump; its soil was originally poor, but it has been much enriched by manure. The collection of plants, both native and exotic, is good, but the season of flowers was over. The native bulbs, which form the great beauty of the collections here, had passed, and but a few amaryllidæ, and some varieties of the oxalis, remained in bloom. Many curious specimens of African plants were noticed, particularly some zamias, strelitzias, aloes, and testudinarias. Of the former we brought home a fine specimen, whose fruit, which resembles in shape a large pine-apple, is eaten by the bushmen, and is said to be palatable when properly prepared. The collection of East Indian plants was in fine order, and numerous specimens of the cacti attracted our notice.

The portion of ground allotted as a flower-garden contains a fine collection of roses and dahlias, of ornamental shrubs and annuals. There is also a vegetable-garden, while fruit-trees are interspersed here and there throughout the whole. The proprietor furnishes tickets of admission to all who desire them; but his rules and regulations as to the hour of entrance, and respecting the police of the garden, must be strictly observed.

The plants furnished us by the baron have flourished admirably since our return.

If one were to place full reliance on the assertions of its inhabitants, Cape Town and the surrounding country possess a perfection of climate to be met with in no other part of the world; but this, it is to be regretted, is not fully corroborated by the testimony of the meteorological registers that have been kept, as well as the experience of those who have written upon the subject. It has many peculiarities, and may be termed rather a cold climate for its latitude. The mean temperature throughout the year is $67\frac{1}{2}^{\circ}$. The extremes vary 10° above and as much below the mean. It is classed by its inhabitants under the warm and equable climates; yet, notwithstanding, in many situations, it is extremely variable: the thermometer will fluctuate ten degrees in as many minutes, producing an unpleasant sensation of cold; this is owing to the chilly winds that sweep down from the Table Mountain in blasts, to equalize the density of the atmosphere rarefied by being in contact with the heated soil beneath. But little difference is observed between the temperature of sunshine and shade in free and open situations.

This variation of climate is ascribed to the winds: the south-east winds prevail for the most part of the year, and are warm; these are succeeded by the cold wintery winds, which invariably bring fog and misty weather; but in viewing the situation of the Cape with respect to the large bodies of water flowing past it, it would seem more reasonable to impute it to the warm tropical and cold polar currents of water, of whose existence we have given ample proof in the preceding pages; for if the winds were alone to be taken into account, that which comes from the south-east, in the southern hemisphere, ought to produce the cold, while the west and north-westerly winds should be warm. The sudden changes of temperature mentioned

above are merely local, and often confined within narrow limits.

At our anchorage in the bay this occurrence was strikingly perceptible, not only by the thermometer but from the effect produced on our own feelings; while in the town, although the change could be felt, still it was not so remarkable. The inhabitants assert that these changes occur oftenest during the prevalence of a strong south-east wind; but my own experience leads me to believe that they take place during the night, and particularly when a calm prevails, or but a slight breeze is blowing, and indeed all the facts connected with it would lead me to the opinion that such must be the case. Although all seem to be aware of these variations of temperature, I did not learn of any observations that have been taken that could be relied on for accuracy.

Thermometers in different parts of the town, of course, give very discordant results, and all meteorological observations ought to be taken in situations as far as possible removed from the influence of these changes. The south-east winds are often so violent as to prevent communication between the shipping and the shore during some parts of the day, and often cause damage to the small boats, or to the vessels themselves. Cargoes can only be taken in or discharged with safety in the morning, previous to the occurrence of these winds.

Before concluding my remarks on the climate of the Cape, it is necessary to advert to the curious effects of refraction that are often observed. A strange distortion of objects is frequently seen, and even at a short distance from Robben's Island the surf sometimes appears to be thrown up into lofty jets of foam, or a wave is so distorted that it seems rolling in high enough to submerge the whole island. These distortions occur not only in the sea, but in the land view. I noticed them during our visit to the observatory, and now call attention to them again, because the same effect seems to be produced on sea or on land by contrary causes. When at sea, refractions have been observed by us, whenever the thermometer at the masthead showed a higher degree of temperature than that at the surface of the water; but at the Cape the current of air in contact with the heated and sandy soil must be of a higher temperature than that immediately above it, and thus causes the distortion of distant objects; or the fact may be accounted for on the supposition of two parallel currents of different temperatures, moving in opposite directions, and beyond any immediate influence of the earth. I know of no place so favourable to the observation of this description of atmospheric phenomena as the Cape and its vicinity.

The population of the Cape colony, by the returns in 1841, was one hundred and fifty-three thousand, on an area of one hundred and nine thousand eight hundred and sixty-four square miles. The deaths amount annually to about one in forty. The coloured population exceeds the white by about ten thousand. Landed estates in the colony are generally held by those cultivating them, under a lease, and not in fee. The early settlers had not sufficient funds to enable them to purchase as large farms as were necessary, and the present system was in consequence resorted to. The leases, however, were made perpetual, and the farms held under this tenure are known in the colony as "Loan

Farms;" they contain about three square miles, and there are many of this description still existing: these are considered as desirable tenures, being good as long as the rent is regularly paid, which is generally at the low rate of ten dollars for the tract. The lands, however, about the Cape, and in the Cape district, were obtained by grants, and are now known as "Gratuity Farms."

There are likewise freehold estates, which consist of a small farm, not much exceeding one hundred acres. These, I was told, were in the immediate vicinity of Cape Town. They were usually obtained by purchase of the first settlers.

The system of quit-rents is in perpetuity, and the rent is made to depend upon the quality and circumstances of the crop. These are the largest kind of estates, and seldom include less than five to eight thousand acres.

The sale or transfer of land was also novel to us. No land can be sold, unless the persons make application at the Cape, to officers appointed, called commissioners, whose duty it is to see that all liens on the land, such as bonds and mortgages, are all paid up; and the liabilities are fully protected; and the person wishing to sell must have permission of the one who may hold any claim on the estate, before he can legally dispose of his property; and the consent of the mortgagee must be obtained in writing before the debt can be transferred with the property.

Supplies of all kinds can be obtained at the Cape, and usually at reasonable prices; the bread we purchased, made from native flour, was of excellent quality; fruit also, though considered out of season by the inhabitants, could be purchased in any quantity, either in the markets or from the bumboats alongside of the vessels. The usual facilities for watering are rather deficient: there are no floating tanks, and some inconvenience results from the use of casks.

On the 17th, we got under way with a light and baffling wind. The air was from the eastward aloft, while a westerly breeze blowing below it, often took our lower sails aback; still the upper ones were full. By constant attention and frequent swinging of the yards, we effected a passage through the northern channel, passing at a short distance from Robben's Island, on whose shore we saw, as usual, the breaking surf curiously refracted.

Robben's Island is now used as a place of confinement for criminals, who are employed in the quarries to furnish stone for paving and building. The stone is a schistus, and commonly known at the Cape as blue flag.

As we cleared the island, objects to seaward were seen refracted in a manner that I had never before observed so distinctly. As before stated, there was an upper and an under current in the atmosphere, and these strata were of different temperature. The thermometer at the masthead marking 73°, while that on the deck stood at no more than 59°. A ship about three miles distant in the offing, was seen vertically and horizontally refracted at the same time. Her courses and top-sails appeared ill-defined, shapeless, and quivering; her bowsprit and head-spars formed curves, while her jib and flying-jib were drawn out in nearly horizontal lines. Above, her topgallant-sails and royals were seen perfectly well defined; a distinct line of bluish haze divided them from the lower

sails, and could be traced to about sixty degrees on each side, until it joined with the horizon.

We now shaped our course for St. Helena, which I was desirous of reaching at the earliest day, in order to intercept the two brigs, and if a further supply of bread could be obtained there, to proceed with them directly for the United States.

Our passage to St. Helena was of the ordinary length, thirteen days; we had very light winds and a smooth sea, indicating that a long calm had existed. Northerly currents generally prevailed, though at times setting to the eastward and westward of that point. On the 30th of April, in the latitude of 23° S., and longitude 2° 40' E., we entered the trades, from which time until our arrival at St. Helena on the 1st of May, we experienced no currents.

The appearance of the island disappointed us: its height and size were much less than we anticipated. It is but a bare and barren rock, rising abruptly from the sea; and the only thing remarkable is the succession of batteries, which are seen occupying every nook and corner where cannon could be placed, from the water-line to the highest peak. All now serve but to recall to mind the extraordinary man for whose safe-keeping so much cost and care had been bestowed. From the outward view of St. Helena, it seems scarcely necessary to have incurred so much expense and provided such means for the safe-keeping of Napoleon; for the island itself is almost inaccessible on all sides; its bare rocks rising several hundred feet perpendicularly from the water. To reach the roadstead it is necessary to pass within a short distance of the rocks, and close along them until the valley of Jamestown is reached, which offers the only anchorage. Here it is often difficult to procure a good berth, as the roadstead is frequently crowded with vessels.

On our arrival we were informed that the Porpoise and Oregon had sailed but a short time previously; all were well, and their stay at the island had been short. Six American ships were at anchor in the roadstead when we arrived, and three more came in the day after, making in all ten ships and a schooner bearing the flag of our own country.

The interior of the island of St. Helena is uninteresting, and when compared with those we had recently visited, may be said to be devoid of beauty. It possesses nothing to recommend it to the notice of a stranger, except its connexion with Napoleon's exile. It is said this island was first suggested as a place of confinement for the great prisoner by the Duke of Wellington, who had himself been detained there for some months, while on his way from India, and was forcibly impressed with its natural strength and adaptation for his confinement.

To the circumstance of the residence of Napoleon this island owes not only its chief celebrity; but as a consequence, its temporary growth and prosperity: and with the removal of his remains, St. Helena will revert to what it was formerly.

On his first landing, the ex-emperor occupied the very apartments formerly used by the Duke of Wellington; but was, the next day, at his own request, removed to the "Briars," a retired country cottage, situated in the small "bosom" at the head of the gully of Jamestown.

The only collection of houses is Jamestown; and although situated in a narrow gorge, it is the best locality on the island for a town. The space occupied by it has been as much improved as was possible, and the place has rather a cheerful appearance; more, however, from the diversified character of its inhabitants, than from the neatness and architecture of its buildings. The variety of costume is greater than one would expect, ranging from the well-dressed English soldier to the Oriental costumes of India and China. There are many quadroons, who are said to be descendants of the natives of Madagascar, brought here originally by the Dutch. They were pointed out to me as remarkable for their beauty, and many of them have certainly, it must be acknowledged, well-developed and even handsome forms; which, from appearances, they are fond of exhibiting, and to which their style of dress is well adapted.

Extortion is here carried to its height, and although the stay of the stranger is only for a few hours, the time is sufficient to make him aware that he has submitted to some exorbitant demand, if his curiosity have led him to visit Longwood and the tomb of Napoleon.

Our consul, Mr. Carrol, was kind enough to make arrangements for our visiting Longwood and the tomb, and it was decided that we should set out at an early hour the next morning.

Captain Hudson, Mr. Waldron, and myself, accordingly landed at the jetty early the next day, and found waiting for us a small wagon with two stout horses, in which we seated ourselves, and were driven to the American consulate. We were there joined by Mr. Carrol, and taking the eastern road, commenced ascending the narrow track leading up the side of the cliff. The road seemed to have been carried over some places with great difficulty; heavy walls were built in some places to form the road, while in others the path was blasted out of the rock. As we ascended, we had a bird's-eye view of the town and the gorge in which it lies. The houses and their inhabitants were alike reduced in size, and we experienced the accuracy of the poetical assertion, "that distance lends enchantment to the view," for from our elevated position all appeared neat and clean. The hospitals for the troops are situated in the upper end of the valley, in a space too contracted for comfort. Their appearance is strongly in contrast with that of those usually attached to British garrisons, and led to some inquiries on my part as to the necessity for their confined position. The island being usually healthy, and infectious diseases but seldom prevailing, quarantine is performed at Lemon Valley, or rather it was used for that purpose during our visit; a number of recaptured slaves, among whom the small-pox had made its appearance, being detained there.

The first object of interest that presents itself as connected with the residence of Napoleon, is the cottage at the Briars, to which he was removed soon after his arrival. It is situated in a small dell at the head of the gully, and has attached to it some ten acres of ground, laid out in walks and flower-beds. There are many similar spots on the island, which are known by the name of "bosoms;" none of them, however, so striking, nor having such an air of quiet and comfort as that just mentioned. Its beauties are more strongly impressed

by the marked contrast they afford to the arid and barren rocks of the gully side, up which we had been making our ascent under a burning sun. The only vegetation on the surrounding hills was a few cacti and wild vines, and some firs that were imported from Scotland about fifty years ago. The high ground of the island was of equal altitude, there being but few points above the general level. On reaching it, we felt a sensible change of temperature, the air becoming raw and disagreeable. Turning to the eastward, we proceeded three miles along the road, and then turned into the path which leads to the quiet dell in which the tomb is situated. The road soon became so steep that we were obliged to alight from the carriage, and descend on foot to the cottage occupied by the widow Talbot, who furnishes refreshments to visitors, and who takes care to let it be known that it is customary to pay for them, whether you partake or not. Her continued whinings about her poverty, the injustice of the British government, and the unfulfilled promises of the Prince de Joinville, are singularly out of place, and at variance with the thoughts with which one's mind is occupied when visiting such a spot. In the rear of the cottage, at the end of the dell, and about thirty yards distant, is the tomb.

On the banks of the dell, a few yews, cedars, and weeping-willows, are growing; while in its centre stands the old and now leafless willow, which seems, like the emperor, to have been killed by the treatment it has received. A spring of pure and delicious water bubbles from the rock near by; to it we retreated to avoid the annoyance occasioned by the monotonous whinings of an old sergeant. He talked continually of the length, breadth, and depth of the vault, told us of how many slabs it was formed, how they were cemented together, how opened, and many other particulars of so little importance, that I shall not trouble my readers by repeating them. We at last put an end to the garrulity by paying him the expected shilling, and walking off out of hearing. This is an annoyance to which all who have visited the tomb have been subject, and which does away with half the satisfaction of the pilgrimage. We drank some water from the spring, received a bouquet of the Napoleon geranium from the little girls, and returned to the cottage, which we found crowded with Dutch officers, who were devouring the widow's eatables as if determined to have the worth of their money; from their great appetites she told us she anticipated but little profit. Scarcely had they finished eating, when their pipes were put in requisition, and a cloud of smoke not only filled the apartment, but issued in all directions from its doors and windows. I have seldom seen so little regard paid to the comfort of others, or so little respect shown to the resting-place of the mighty dead, as by these officers.

After satisfying the claims of the widow, and disposing of certain relics obtained through her as marks of special favour, we departed for Longwood, about two miles further on. The road is good and nearly level, running along the top of a barren ridge; on our way we passed the "Tap-room," immediately opposite to which was the dwelling of the Count Bertrand. The horizon is visible from the road, both to the north and east; and on either side the eye wanders beneath into the deep and inaccessible gullies, from which their gloomy and

uninviting character have obtained the appropriate name of the Devil's Gorge, &c.

The day on which we paid this visit was called by the inhabitants a fine one, but we thought the air damp and chilly, and were glad to draw our cloaks closely around us. We soon reached the gate, and were stopped until we paid the usual fee of two shillings sterling for each person. The house is at present leased by the government to a Captain Mason, a retired army officer, for one hundred and fifty pounds per annum, and by his order the entrance fee is demanded before the gate is opened. Mr. Carrol pointed out to us the sites of the camps of observation, and other spots in the neighbourhood, interesting from associations connected with the residence of Napoleon. As we drove towards the house, every thing wore a neglected look, to all appearance intentional.

Longwood is now but little better than a barn; the glass of the windows is broken, and the outward walls much disfigured. The door at which visitors are admitted is covered with a small latticed veranda, and leads into what is called the billiard-room, although it seems much too small ever to have been used for that purpose; its walls are covered with scribbling, and its general appearance is dirty and neglected. The next apartment is about fourteen by seventeen feet, said to have been used as a dining-room, and in which Napoleon died; it is now occupied by a patent thrashing and winnowing machine, and was strewn with chaff and straw. The adjoining room had been used as a library; its present state was disgusting, and it seemed as if appropriated to the hatching of chickens. The bath, bed, and dressing-rooms, which he occupied at the commencement of his illness, are now in part used as a stable. The place in which his body lay in state, contains eight stalls, five of which were occupied by horses and cattle.

If the design had been to desecrate as much as possible the habitation that had been occupied by the fallen emperor, it could not have been more effectually accomplished; but whatever may be the motive, whether intentional or otherwise, it certainly redounds little to the credit of the British nation. The miserable condition of Longwood when we visited it was a subject of general animadversion. The money derived from the lease of the property is paid into the queen's treasury, no part of this small sum being retained to keep the building in repair; nor are there any conditions in the lease that compel the lessee to do it. It is with regret I am compelled to state that the lessee is a military man, and an officer in the British army.

Longwood is bleak and exposed; the damp trade-winds sweep past it continually, and but few days in the year are without either mist or rain. The valley of Jamestown is known to be dry and healthy; there are some other spots also on the island that enjoy a climate as fine as any on the globe. One of these might have been chosen as a residence, which would have proved much more congenial to the taste, and better suited to the constitution of the emperor. Plantation House, for instance, the country seat of the governor, enjoys, by all accounts, a delightful climate.

The grounds of Longwood cannot be called pretty, but from the constant moisture the herb-

age is greener than in other parts of the island. There are no trees, but the shrubbery is dense around the gardens. The new house at Longwood is built of yellow sandstone, one story in height, and is situated some hundred yards on the western declivity, and is in some measure sheltered from the easterly winds. It contains a handsome suite of rooms, and, when compared with the old house, seems quite a palace. At the time of our visit it was occupied by Lieutenant Smith, of the artillery, and his assistants, who have charge of the magnetic observatory. The house has never been finished: the death of the emperor of course rendering its completion unnecessary. It is said that during his life he never visited it, nor would he allow any one to consult him about its plan, declaring that he would not remove to it.

Napoleon seems to have engrafted himself on the memory of the islanders; and all the events and little incidents occurring to him during his residence, are remembered and cherished by them with pleasure. His chief complaint regarded the system of espionage under which he was placed, from the hour in which he gave himself up to the English to that of his death. It has been asserted, and up to this time without contradiction, that Sir George Cockburn, who commanded the *Bellerophon*, in which vessel Bonaparte was transported to St. Helena, was ordered to make minutes of every conversation that took place during the voyage. These memoranda have been already published in Boston, and their authenticity, although denied, seems to be unquestionable; for the publication emanated from the private secretary of Sir George; who, while making out one fair copy of the minutes, made another for himself. Although the ministry may have thought themselves justified in taking this course at the time, yet it seems, at this time, scarcely reconcilable with a high sense of honour; and notwithstanding Sir George may have considered it necessary to obey implicitly his orders, still the fact that he lent himself to such a service must injure his reputation.

In justice to Sir Hudson Lowe, it must be stated, according to what I heard at the island, that his treatment of his royal captive was in strict conformity to his instructions, and that, as far as his orders were concerned, he was allowed no discretion. Many of the inhabitants know that he tried in several ways to ameliorate the condition of his prisoner, but he was not permitted to do so.

I trust that what I have said upon this subject will not be construed as disrespectful to a high-minded and friendly government, or be casting any odium on the many honourable and courteous British officers it has been my good fortune to meet in many parts of the globe, and who have extended to me and my officers the most grateful civilities; but I could not forbear the expression of my sentiments when I contemplate the prison-house of Napoleon, and the ignoble condition and uses to which it is put.

The officer in charge of the magnetic observatory complained that it was badly placed, and that both his instruments and observations suffered from the constant change of temperature, and the dampness of the situation. He politely showed us the instruments, which were in a detached building; after which we returned to Longwood, and

soon after left it, glad to escape from the mist and driving wind that enveloped it.

From Longwood we took the road to Plantation House, which leads across the island, making numerous turns as it ascends and descends the gullies. Many pretty dells were occupied by neat cottages, in whose gardens were cultivated potatoes and other vegetables. Of the former, two crops are obtained within the year, and a ready sale is found for them to the vessels that visit the island. On our arrival at the porter's lodge of Plantation House, we were informed that the governor, Colonel Trelawny, had gone to Jamestown, and that the ladies of the family were not visible. We therefore, so far as time permitted, examined the grounds, which are laid out with taste, and contained a good collection of foreign trees. Some of these were very flourishing, and it was curious to see many trees of European species growing side by side with those of Australia.

Our botanists were of opinion that the tradition which prevails, of the island, at the time of its discovery, having been covered with wood, is erroneous; and that the story of the destruction of this forest by goats, is equally so. The barrenness of this island is well illustrated by the difficulty with which young trees are preserved from the ravages of sheep or goats. Pasture is so scarce, that but few cattle are kept, and these are chiefly importations from the Cape of Good Hope. Their scarcity may be judged of from the price of beef, which sells for twenty-five cents a pound; and it may be as well to state, that to strangers the prices of all other eatables are equally exorbitant.

From the road near Plantation House, we had a good view of the gully in which Jamestown is situated, together with the ravines extending into it from the interior of the island. Descending, we passed over a portion of the island which is little better than a barren rock. Yet in some places comfortable-looking houses were seen, and here and there a beer-house, or tap-room, quite in the English style, and, from all accounts, as great nuisances as low taverns are in any country. We finally reached the fortification on Ladder Hill, and made the descent of the zigzag road on the side of the cliff, passing a place called Colonel Pearce's Revenge, where the road is completely overhung by large masses of rock, which seem ready to fall. The rapid pace of the horses, the frequent sharp turns, and the overhanging cliff, excite some alarm in those not accustomed to them; and I must confess that I was quite satisfied when we passed the last turn, and were safely landed at the consulate.

The population of the island is about four thousand. It consists of whites, who, if the garrison be deducted from their numbers, form the smallest portion of the inhabitants; of negroes and their descendants of the mixed blood, and some few Chinese. The negroes were brought by the East India Company from Madagascar, and, with their descendants, now form the largest portion of the population. The number of vessels that touch annually at the island is now about eight hundred.

We embarked in the afternoon, regretting that our time was so limited, and that no opportunity was afforded us to return the kind attentions bestowed upon us by the consul and his family.

As we were getting under way, it became evident that many of the seamen had obtained supplies of grog from the shore, in spite of all the precautionary measures that had been taken. One, in consequence, fell from the main-top, but, fortunately for him, while falling, struck a portion of the rigging, and was thus canted into the sea, from which he was picked up uninjured. When the anchor was up we bore away to the northward, under all sail, with a favourable breeze.

As we passed through the tropics, many opportunities were afforded us for viewing the zodiacal light, both in the morning and the evening. Its general appearance was that of a well-defined cone, whose height, as marked by the stars, remained nearly constant at 40° elevation, and at the base 15°. Its first appearance after sunset was like a broad semicircular band of light, the brightness of which increased as the evening closed in, when its shape became that of a well-defined cone. The light was sometimes equally diffused, and at others appeared as if radiating through the cone. Its intensity varied from a light equal to that given by a bright aurora to that of a comet, the centre of the cone being often the least brilliant; and during a partially cloudy evening it was sometimes so bright as to obscure stars of the second magnitude. Its appearance in the morning was better defined than in the evening, and the light was more of a blue than a yellow tint; the altitude of the cone was greater, and its base of less extent. As we changed our latitude, the position of the apex of the cone remained stationary, but its inclination varied. For further information on these phenomena, I must refer the reader to the volume on Physics.

On the 9th of May, we crossed the magnetic equator in latitude 9° 20' S., and in longitude 16° 40' W.

On the 2nd of June, we had reached latitude 29° N., and longitude 68° W.; and the wind, which had been gradually hauling from the northward and eastward round to the south-south-west, began to fail us. We had light and variable breezes from this day until the 8th, when we reached the neighbourhood of the Gulf Stream, and experienced the weather that is peculiar to it. The lightning was very vivid, and the rain fell in torrents; its temperature was 63°. In the latter part of the day it blew a strong gale from the eastward. I regretted this much, as it was my intention to make full experiments on the deep temperature and the velocity of the current in the stream; but the roughness of the sea and violence of the wind prevented it. The close proximity to our port also, and the increasing impatience of all on board to reach their homes, forbade all unnecessary delay. The experiments we did make gave a difference of three degrees of temperature, between the surface and one hundred fathoms depth. The highest temperature of the surface experienced while crossing the stream was 79°; when we entered, it was 77°. We were seven hours in crossing it, and found, as in our first passage, that the inner edge was the warmest. During the next half hour after leaving the Gulf Stream, the surface temperature fell twelve degrees, and so continued until we got on soundings, when it rose again some three or four degrees. The morning of the 9th was foggy, which rather tried our patience, but by firing guns we attracted the attention of the

pilot-boats, and on the fog clearing away a little, discovered one close to us. A pilot now boarded and took charge of the ship, and at noon on the 10th of June, 1842, anchored us off Sandy Hook, where a steamer came alongside soon afterwards, and took us in tow. After stopping half an hour at the quarantine ground, to receive the visit of the health officer, we held our course towards the city of New York.

Before I left the Vincennes off the Battery, the crew were called to muster, when I expressed to them my thanks for the manner in which they had conducted themselves during the cruise, and stated the confident belief entertained by me, that they would receive from the government such rewards as the successful performance of the cruise, and their long and perilous services, entitled them to. A national salute was then fired, and my pennant hauled down, the command of the ship being given to Captain Hudson, who proceeded with her to the navy-yard. As soon as she was safely moored, all the men who could be spared were allowed to go on shore, with their bags and hammocks. A happier set of fellows than they were is not often to be met with; being relieved from their long confine-

ment on shipboard, and the severe discipline of a man-of-war.

Those who have perused this full narrative of the events of the expedition, I confidently believe, will absolve me from all the charges so industriously circulated against me, relative to the manner in which I had conducted the expedition; at the same time they will see what meed of honour or reward is justly due to the officers and crews who faithfully served out the cruise. All of the former, and many of the latter, are still to be found on the rolls of the navy, and to them, I trust that the applause of a grateful country has been only delayed, not wholly lost.

On our arrival home, the health of the prisoner Vendovi had so far declined, that it was necessary to place him in the Naval Hospital at New York. Every attention was paid him there, but very soon afterward he expired.

The Porpoise and Oregon had, in the mean time, proceeded to Rio Janeiro, where they executed their instructions, and having obtained the necessary supplies, sailed for the United States. After leaving the equator, their route differed but little from that pursued by the Vincennes.

APPENDIX.

A.

INSTRUCTIONS.

Navy Department,
August 11th, 1838.

SIR,—The Congress of the United States, having in view the important interests of our commerce embarked in the whale-fisheries, and other adventures in the great Southern Ocean, by an act of the 18th of May, 1836, authorized an Expedition to be fitted out for the purpose of exploring and surveying that sea, as well to determine the existence of all doubtful islands and shoals, as to discover and accurately fix the position of those which lie in or near the track of our vessels in that quarter, and may have escaped the observation of scientific navigators. Liberal appropriations have been made for the attainment of these objects, and the President, reposing great confidence in your courage, capacity, and zeal, has appointed you to the command of the Expedition, requiring you to proceed to the performance of the duties of that station with the vessels placed under your orders, consisting of the sloops of war Vincennes and Peacock, the ship Relief, the brig Porpoise, and tenders Sea-Gull and Flying-Fish.

As soon as these vessels are in every respect ready, you will accordingly take your departure from Norfolk, and shape your course to Rio Janeiro, crossing the line between longitude 18° and 22° W., and keeping within those meridians to about latitude 10° S., with a view to determine the existence of certain *cigias* or shoals laid down in the charts as doubtful, and whose position, should they be found to exist, it is deemed useful to the interests of our commerce to ascertain.

At Rio Janeiro you will replenish your supplies, taking special care to furnish yourself with a sufficiency of all those articles which are considered the best preventives and remedies for the scurvy. You will determine the longitude of that place, as well as of Cape Frio; after which, you will either detach a vessel, or proceed with your whole squadron, to make a particular examination of Rio Negro, which falls into the South Atlantic about latitude 41° S., with a view to ascertain its resources and facilities for trade.

Having completed this survey, you will proceed to a safe port or ports in Terra del Fuego, where the members of the scientific corps may have favourable opportunities of prosecuting their researches. Leaving the larger vessels securely moored, and the officers and crews occupied in their respective duties, you will proceed with the brig Porpoise, and the tenders, to explore the southern

Antarctic, to the southward of Powell's Group, and between it and Sandwich Land, following the track of Weddell as closely as practicable, and endeavouring to reach a high southern latitude; taking care, however, not to be obliged to pass the winter there, and to rejoin the other vessels between the middle of February and beginning of March. The attention of the officers left at Terra del Fuego, will, in the mean time, be specially directed to making such accurate and particular examinations and surveys of the bays, ports, inlets, and sounds, in that region, as may verify or extend those of Captain King, and be serviceable in future to vessels engaged in whale-fisheries, in their outward and homeward-bound passages.

You will then, on rejoining the vessels at Terra del Fuego, with all your squadron, stretch towards the southward and westward as far as the Ne Plus Ultra of Cook, or longitude 105° W., and return northward to Valparaiso, where a store ship will meet you in the month of March, 1839. Proceeding once more from that port, you will direct your course to the Navigator's Group, keeping to the southward of the place of departure, in order to verify, if possible, the existence of certain islands and shoals, laid down in the charts as doubtful, and if they exist, to determine their precise position, as well as that of all others which may be discovered in this unfrequented track. When you arrive in those latitudes where discoveries may be reasonably anticipated, you will so dispose your vessels as that they shall sweep the broadest expanse of the ocean that may be practicable, without danger of parting company, lying to at night in order to avoid the chance of passing any small island or shoal without detection.

It is presumed you will reach the Navigator's Group some time in June, 1839. You will survey this group and its harbours, with all due care and attention. If time will permit, it will be well to visit the Society Islands, and examine Eimeo, which, it is stated, possesses a convenient harbour.

From the Navigator's Group, you will proceed to the Feejee Islands, which you will examine with particular attention, with a view to the selection of a safe harbour, easy of access, and in every respect adapted to the reception of vessels of the United States engaged in the whale-fishery, and the general commerce of these seas; it being the intention of the government to keep one of the squadron of the Pacific cruising near these islands in future.

After selecting the island and harbour best adapted to the purposes in view, you will use your endeavours to make such arrangements as will insure a supply of fruits, vegetables, and fresh provisions, to vessels visiting it hereafter, teaching the natives the modes of cultivation, and encouraging them to raise hogs in greater abundance.

These objects will, it is presumed, occupy you until the latter end of October; and when attained as far as may be possible, you will proceed to the port of Sydney, where adequate supplies may be obtained. From thence you will make a second attempt to penetrate within the Antarctic region, south of Van Diemen's Land, and as far west as longitude 45° E., or to Enderby's Land, making your rendezvous on your return at Kerguelen's Land, or the Isle of Desolation, as it is now usually denominated, and where you will probably arrive by the latter end of March, 1840.

From the Isle of Desolation you will proceed to the Sandwich Islands, by such route as you may judge best, from the information you may acquire from such sources as fall in your way.

A store-ship from the United States will meet you there, with a supply of provisions, in the month of April, 1840.

Thence you will direct your course to the north-west coast of America, making such surveys and examinations, first of the territory of the United States on the seaboard, and of the Columbia river, and afterwards along the coast of California, with special reference to the Bay of St. Francisco, as you can accomplish by the month of October following your arrival.

You will then proceed to the coast of Japan, taking in your route as many doubtful islands as possible; and you have permission to pass through the Straits of Sangar into the Sea of Japan, where you may spend as much time as is compatible with your arrival at the proper season in the sea of Sooloo or Mindoro.

Of this sea you will make a particular examination, with a view to ascertain whether there is any safe route through it, which will shorten the passage of our vessels to and from China.

It is enjoined on you to pay very particular attention to this object, in order that you may be enabled to furnish sailing instructions to navigators. It may be also advisable to ascertain the disposition of the inhabitants of the islands of this archipelago for commerce, their productions and resources.

Having completed this survey, you will proceed to the Straits of Sunda, pass through the Straits of Billiton, which you will examine, and thence to the port of Singapore, where it is probable you may arrive about the beginning of April, 1841, and where you will meet a store-ship from the United States.

Having completed this service, it is presumed the objects of your enterprise will be accomplished, and you will, accordingly, after receiving your supplies at Singapore, return to the United States by the Cape of Good Hope, taking such a course as may be most likely to further the great purposes of the expedition.

During your stay in the southern latitudes, should the dysentery or any other fatal epidemic make its appearance among your crews, you have leave to proceed to the northward, until the disease

shall either disappear, or be so mitigated, as to admit of the resumption of your surveys.

The department does not feel the necessity of giving any special directions for preserving the health of those under your command, confiding in your own experience, the care and precautions of the able surgeons with whom you are provided, and in the conviction you must feel, that on the health of your crews must depend the success of the enterprise.

In the prosecution of these long and devious voyages, you will necessarily be placed in situations which cannot be anticipated, and in which, sometimes your own judgment and discretion, at others, necessity, must be your guide. Among savage nations, unacquainted with, or possessing but vague ideas of the rights of property, the most common cause of collision with civilized visitors, is the offence and the punishment of theft. You will therefore adopt every possible precaution against this practice, and in the recovery of the stolen property, as well as in punishing the offender, use all due moderation and forbearance.

You will permit no trade to be carried on by the squadron with the countries you may visit, either civilized or savage, except for necessities or curiosities, and that under express regulations established by yourself, in which the rights of the natives must be scrupulously respected and carefully guarded.

You will neither interfere, nor permit any wanton interference with the customs, habits, manners, or prejudices of the natives of such countries or islands as you may visit; nor take part in their disputes, except as a mediator; nor commit any act of hostility, unless in self-defence, or to protect or secure the property of those under your command, or whom circumstances may have placed within reach of your protection.

You will carefully inculcate on all the officers and men under your command, that courtesy and kindness towards the natives, which is understood and felt by all classes of mankind; to display neither arrogance nor contempt, and to appeal to their good-will rather than their fears, until it shall become apparent that they can only be restrained from violence by fear or force.

You will, on all occasions, avoid risking the officers and men unnecessarily on shore at the mercy of the natives. Treachery is one of the invariable characteristics of savages and barbarians; and very many of the fatal disasters which have befallen preceding navigators, have arisen from too great a reliance on savage professions of friendship, or overweening confidence in themselves.

Much of the character of our future intercourse with the natives of the lands you may visit, will depend on the impressions made on their minds by their first intercourse with your vessels.

It is the nature of the savage long to remember benefits, and never to forget injuries; and you will use your best endeavours wherever you may go, to leave behind a favourable impression of your country and countrymen. The expedition is not for conquest, but discovery. Its objects are all peaceful; they are to extend the empire of commerce and science; to diminish the hazards of the ocean, and point out to future navigators a course by which they may avoid dangers and find safety.

An expedition so constituted, and for such

purposes, armed for defence, not conquest, and engaged in pursuits in which all enlightened nations are equally interested, has a right to expect the good-will and good offices of the whole civilized world. Should our country, therefore, be unhappily involved in war during your absence, you will refrain from all acts of hostility whatever, as it is confidently believed none will be committed against you. So far from this being the case, it is not to be doubted that even hostile nations will respect your purposes, and afford every facility to their accomplishment.

Finally, you will recollect, that though you may frequently be carried beyond the sphere of social life, and the restraints of law, yet that the obligations of justice and humanity are always and every where equally imperative in our intercourse with men, and most especially savages; that we seek them, not they us; and that if we expect to derive advantages from the intercourse, we should endeavour to confer benefits in return.

Although the primary object of the expedition is the promotion of the great interests of commerce and navigation, yet you will take all occasions, not incompatible with the great purposes of your undertaking, to extend the bounds of science, and promote the acquisition of knowledge. For the more successful attainment of these, a corps of scientific gentlemen, consisting of the following persons, will accompany the expedition, and are placed under your direction.

MR. HALE, Philologist.	
MR. PICKERING,	} Naturalists.
MR. PEALE,	
MR. COUTHOUY, Conchologist.	
MR. DANA, Mineralogist.	
MR. RICH, Botanist.	
MR. DRAYTON,	} Draughtsmen.
MR. AGATE,	
MR. BRACKENRIDGE, Horticulturist.	

The hydrography and geography of the various seas and countries you may visit in the route pointed out to you in the preceding instructions, will occupy your special attention; and all the researches connected with them, as well as with astronomy, terrestrial magnetism, and meteorology, are confided exclusively to the officers of the navy, on whose zeal and talents the department confidently relies for such results as will enable future navigators to pass over the track traversed by your vessels, without fear and without danger.

No special directions are thought necessary in regard to the mode of conducting the scientific researches and experiments which you are enjoined to prosecute, nor is it intended to limit the members of the corps each to his own particular service. All are expected to co-operate harmoniously in those kindred pursuits, whose equal dignity and usefulness should ensure equal ardour and industry in extending their bounds and verifying their principles.

As guides to yourself and to the scientific corps, the department would, however, direct your particular attention to the learned and comprehensive reports of a committee of the American Philosophical Society of Philadelphia, the report of a committee of the East India Marine Society, of Salem, Massachusetts; and to a communication from the Naval Lyceum of New York, which ac-

company, and are to be regarded as forming a part of these instructions, so far as they may accord with the primary objects of the expedition, and its present organization. You will, therefore, allow the gentlemen of the scientific corps the free perusal of these valuable documents, and permit them to copy such portions as they may think proper.

The Russian Vice-Admiral Krusenstern has transmitted to the department memorandums relating to the objects of this expedition, together with the most improved charts of his atlas of the Pacific Ocean, with explanations, in three volumes. These are also confided to your care; and it is not doubted that the friendly contributions of this distinguished navigator will essentially contribute to the success of an enterprise in which he takes so deep an interest.

You will prohibit all those under your command from furnishing any persons not belonging to the expedition with copies of any journal, charts, plan, memorandum, specimen, drawing, painting, or information of any kind, which has reference to the objects or proceedings of the expedition.

It being considered highly important that no journal of these voyages, either partial or complete, should be published without the authority and under the supervision of the government of the United States, at whose expense this expedition is undertaken, you will, before you reach the waters of the United States, require from every person under your command the surrender of all journals, memorandums, remarks, writings, drawings, sketches, and paintings, as well as all specimens of every kind, collected or prepared during your absence from the United States.

After causing correct inventories of these to be made and signed by two commissioned officers, and by the parties by whom they were collected or prepared, you will cause them to be carefully sealed by the said officers, and reserved for such disposition as the department may direct.

You will adopt the most effectual measures to prepare and preserve all specimens of natural history that may be collected, and should any opportunities occur for sending home by a vessel of war of the United States, copies of information, or duplicates of specimens, or any other material you may deem it important to preserve from the reach of future accident, you will avail yourself of the occasion, forwarding as frequently as may be done with safety, details of your voyage and its most material events, at the same time strictly prohibiting all communications except to this department, from any person attached to the expedition, referring to discoveries, or any circumstances connected with the progress of your enterprise.

It is believed that the officers under your command require no special advice or direction from this department. Bearing in mind, as they no doubt will, that the undertaking which they are about assisting to accomplish, is one that necessarily attracts the attention of the civilized world, and that the honour and interests of their country are equally involved in its results, it is not for a moment doubted that in this, as on all other occasions, they will so conduct themselves, as to add to the reputation our navy has so justly acquired at home and abroad.

With the best wishes for the success of the ex-

pedition, and the safe return of yourself and your companions,

I am, very respectfully,
(Signed) J. K. PAULDING.

To LIEUTENANT CHARLES WILKES,
Commanding the exploring and surveying
expedition, &c.

P. S. The accompanying printed list of English

words, drawn up by Mr. Gallatin, and received from the war department since these instructions were prepared, are intended for Indian vocabularies, which can be filled up as circumstances permit, taking care that the same words be used in all of them.

(Signed) J. K. PAULDING.

B.

MEMORANDUM BY ADMIRAL KRUSENSTERN*.

I. I HAVE pointed out, in the supplementary volume of my Hydrographical Memoirs, (pages 19, 96, and 113,) several islands, the existence of which does not appear to be subject to any doubt, but of which the position is not determined with the best precision. It is much to be wished that all such islands were to be visited, and their position verified. With respect to the islands of rather doubtful existence, the names of which I have given, (pages 156—165, supplement,) there is certainly no other method of ascertaining their existence than to search for them, and to determine, with the greatest precision, the latitudes and longitudes of such as are found. A great number of these imaginary islands will then, of course, vanish from the charts.

II. Captain Bligh discovered, in the year 1789, to the northward of the New Hebrides, a group of islands, which he named *Banks's Islands*; and Captain Wilson, another cluster of islands, to the northward of the Santa Cruz Islands, named by him *Duff's Group*. Neither these nor the Banks's Islands have been since seen, it would be well to make a new survey of them.

III. *Islands of Santa Cruz*.—In my memoir, belonging to the chart of these islands, I have discussed the situation of Carteret's *Swallow Island*, and expressed my belief that the islands seen by Captain Wilson in 1797 are the same as Swallow Island. Captain Freycinet is of the same opinion, and, by a new survey of Wilson's Island, confirmed this hypothesis. There remains, then, no doubt that Byron's Swallow Island does not exist; but, as it still continues to be delineated on some of the latest charts, it would be well that its non-existence should be equally proved by the American expedition.

IV. *The Solomon Islands*.—These islands have partly been visited by D'Urville and Shortland, partly by D'Entrecasteaux; and several English ships have at different times sailed through them; but a complete survey of all the islands composing this great archipelago is still wanting. It is indeed very singular that, of all the navigators who have lately visited the Pacific Ocean, none have ever attempted any thing like a systematic survey of these islands, with the exception of D'Entrecasteaux, who, at least, sailed along the southern islands, from east to west, and thus greatly improved the

hydrography of them. I have published, in the year 1827, a chart of these islands (*Carte Systematique de l'Archipel des Iles Salomon*). Having collected all the materials that were to be had at that time, many of them in apparent contradiction to each other, I endeavoured to reconcile them, and to delineate the islands belonging to this archipelago, to the best of my judgment. (An account of my proceedings will be found in the memoir accompanying my chart.) By the first survey of these islands, it will be seen whether some of my combinations have been well founded or not. The Solomon Islands being the greatest archipelago in the Pacific Ocean, and the least known, deserve, no doubt, to be as completely surveyed as the Society, Friendly, or other groups. Although ten years have elapsed since my chart was published, nothing has been done since that time for the hydrography of these islands, to enable me to improve the second edition of that chart, (1836,) except in the situation of a group of islands, discovered lately, to the northward of the Solomon Islands.

V. *New Caledonia*.—A dangerous reef has lately been discovered by the ship *Petrie* to the northward of New Caledonia; the precise position of this danger ought to be determined.

VI. *Loyalty Islands*.—Captain D'Urville has been the first to survey the Loyalty Islands; but having sailed only along the northern side of them, it is to be wished that the southern shore might also be surveyed.

VII.* *The Feejee Islands*.—Captain D'Urville has done a great deal to give us a more correct chart of these islands, having surveyed a great part of them; but still he has left unexplored many islands belonging to this archipelago. In my supplementary memoir to the chart of these islands, I have endeavoured to combine Captain D'Urville's survey with such surveys as had been made previous to his voyage; and have constructed, according to all the data that have come to my knowledge, a new chart of the Feejee Islands (named by Captain D'Urville, *Viti Islands*). Of course the chart cannot be very correct, but it may perhaps serve till a new complete survey is made of them.

VIII. *New Ireland*.—It is astonishing that nearly two centuries have elapsed without the islands situated to the north of New Ireland—first seen by Tasman, and since by Dampier and Bougainville—having been examined, so that we know as little of them as was known one hundred

* The asterisk after the number of some of these articles, denotes that the islands, &c., have been examined by the expedition.

and fifty years ago. There remains, then, to be made a complete survey of all these islands. As to the islands near them, seen by Maurell, it is not likely that they are the same, as some have supposed. This is another reason why they should be all explored with the greatest precision.

IX. *Admiralty Islands*.—It is much to be wished that the islands seen by Maurell, to the eastward of the Great Admiralty Island, should be explored, since we know that Maurell's account of his discoveries does not satisfy the hydrographer.

X. *New Britain*.—Admiral D'Entrecasteaux has seen and determined, with his usual exactness, the islands situated along the north coast of New Britain; but he has not been able to lay down the coast itself, which he has seen only at a distance, and some parts not all.

XI.* *Low Islands*.—Captain Hagemuster, of the Russian navy, discovered, in the year 1830, an island to the westward of King George's Islands. This island cannot be any other than Schouten's Waterlandt. Captain Wilson sailed between two islands, which he took to be King George's Islands. Most navigators have been of the same opinion; although there is a difference of longitude of more than a degree between the islands seen by Wilson and King George's Islands. Captain Duperrey (an excellent authority, as every hydrographer will readily admit,) is of a different opinion; he maintains that the two islands between which Wilson sailed are not King George's Islands, but are situated to the westward of them. He thinks that the island seen by Captain Hagemuster, which I take to be Waterlandt, is one of the two islands; and that Captain Hagemuster has not seen the other. In order to refute Captain Duperrey's hypothesis, the second island, which, according to him, Captain Hagemuster might not have perceived, ought to be searched for, to the westward of Captain Hagemuster's island; if it really does exist, it cannot be at a greater distance than about fifteen or twenty miles.

XII.* Commodore Byron's *Isles of Disappointment* have not been visited since their first discovery in 1765. I have endeavoured to settle their longitude at $140^{\circ} 42' W.$ (page 87 of my supplement); but this being only an approximation, they ought to be surveyed—at least visited anew.

XIII.* By my memoirs, page 281, and supplement, page 90, you will perceive that there is a difference of $27'$ between Captain Bellinghausen's and Captain Kotzebue's longitude of the west point of *Prince of Wales's Island** and the island situated to the westward of it†. What may be the cause of this difference? since the two navigators do not differ, either before or after, more than three minutes. Either the length of Vlighen Island has been overrated by Captain Kotzebue, or some other error has crept into the longitude of either the one or the other. As both are excellent observers, it would be very desirable to settle this point, by examining and surveying carefully all the islands lying to the westward and eastward of Vlighen Island, and determine with the greatest precision the width of the channels separating the different islands, as well as the exact length of

Vlighen or Prince of Wales's Island: the error will, most likely, be detected in the length of that isle.

XIV.* There is a difference of $17'$ in the longitude of the isle *Clermont de Tonnerre* between Captain Duperrey and Captain Beechey. At Serle Island, close to it, there is hardly any difference at all. The same difference of $17'$ exists in the longitude of Prince William Henry, which Captain Beechey has proved to be the same with Captain Duperrey's isle *Lortingo*; whereas at *Mollu Island*, both Captains Beechey and Duperrey agree perfectly well. It would be worth while to search for the cause of such anomalies.

XV.* Captain Beechey is of opinion that Captain Duperrey's isle *Clermont de Tonnerre* is one and the same with the island of Minerva. Captain Duperrey, on the contrary, maintains that the island Minerva is the same as Serle Island. I am of this latter opinion; although the solution of this problem will much depend upon the distance of the island *Clermont de Tonnerre* from Serle Island, which is much less on Duperrey's chart than on Captain Beechey's.

XVI.* There has been lately discovered an island of considerable extent, of the name of *Raraka*. It would be well to examine it, since the account given of it is not quite satisfactory. It is stated to be situated in $16, 3' S.$, and $145^{\circ} W.$

XVII.* I have placed on my chart of the Low Islands, several islands, the position of which is rather doubtful; for instance, the *Bunyer's Group* of Turnbull, the island of *Britomart*, the islands discovered by Quiros, and several others. In order to have any certainty about their existence and precise position, it is necessary to search for and make a survey of them.

XVIII.* *The Islands of San Bernardo and the Islands of Danger*.—Mendane discovered a group of islands, named by him San Bernardo. These islands have been seen by Captains Freycinet and Bellinghausen. Not far from them Byron discovered a small group, which he named Islands of Danger. Notwithstanding a difference of latitude of half a degree, the two groups have been considered as one and the same. It has not been thought impossible that in Byron's latitudes there might have been a typographical error: besides, none, of all the navigators who have passed here, have ever found a second group, which they could not have missed if it really existed. Captain Duperrey, however, who is, as I have said above, a high authority in whatever relates to the hydrography of the South Seas, is of a different opinion: he maintains that Byron's islands of Danger do exist. In order to settle that question, it is necessary to search under the meridian of the islands San Bernardo, as determined by Captain Bellinghausen, for these Islands of Danger in the latitude assigned to them by Byron, as well as for the chain of rocks of which he speaks, and which are situated, according to him, to the eastward. This has not been done yet, and it would be very desirable if it was done, in order not to leave the least doubt on the subject.

XIX.* *Marianne Islands*.—On Captain Freycinet's chart there is to be seen, to the south-west of the Island of Assumption, rocks, by the name of Mary's. Rocks of the same name have been seen by La Perouse, to the northward of Assump-

* On some charts this island is named Dean's Isle; on my charts Vlighen Isle.

† By Captain Porter called Gamble; by Captain Kotzebue, Krusenstern Island.

tion Island. In case the expedition should extend its exploratory researches to the northern hemisphere, this doubtful point should be settled.

XX.* *Caroline Islands*.—These islands have been so well surveyed by Captain Duperrey and Captain Lütke, that there is very little now left to be done concerning them. I shall, however, point out here some islands that require to be determined with great precision: 1. The island named by Captain Morell, *Fasolis*, is most likely the same with Captain Lütke's, *Farroilep*; but a difference of 21' in latitude, makes this doubtful. 2. Island *Lydia*, on Captain's Duperrey's chart. We do not know by whom it has been discovered, nor who has determined its situation. 3. I have endeavoured to prove, in my Supplementary Memoir of the Caroline Islands, that the islands Bordelaire, Fame, Campbell, and the island St. Augustine, are one and the same. This hypothesis requires to be verified. 4. The Monteverde Islands ought to be surveyed; what Captains Monteverde and Morell, the only navigators who have seen them, have said of them, is not sufficiently satisfactory. 5. We see on Captain Duperrey's chart of the Caroline Islands, several islands, of which we know nothing more than the name, viz.: Bumkay's, Quekin's, &c., and their existence and position remain to be ascertained. 6. The island of Arreceios has, so far as my knowledge extends, been seen only by the ship Providence, in the year 1811. Not knowing much respecting it, it is to be wished that it should be surveyed.

XXI.* *The Island of Gilbert*.—At the end of my supplementary volume, I have pointed out what remains to be done in order to have a perfect

knowledge of all the islands belonging to this archipelago.

Remark.—Independent of the American exploratory expedition, there are to be at the same time three others in the South Seas: two English and one French expedition. Many of the islands will of course be visited by all the expeditions; and it is to be apprehended that their longitudes, determined by the different astronomers of the expeditions, will, perhaps, not agree so well as might be wished. This difficulty will of course be obviated, by referring their astronomical observations to the longitudes of such places as are determined by absolute astronomical observations with the greatest precision, and those most likely to be visited by the ships of the expeditions. The positions we have in the South Seas, are *Point Venus*, in longitude $149^{\circ} 29' 17''$ W., determined by the passage of Venus over the disk of the sun; *Port Honolulu*, in the island of Oahu, by occultation of several stars, in $202^{\circ} 10'$ E.; and *Port Jackson, Sydney Cove*, in $151^{\circ} 17'$ E., by an eclipse of the sun. In the northern part of the Pacific, *East Cape*, $190^{\circ} 16' 10''$ E., may be adopted as a well-fixed point, although not determined by absolute astronomical observations. With respect to the coast of South America, *Talcahuana*, the longitude of which was determined by Captain Beechey, to be in $72^{\circ} 56' 59''$ W., seems to me a well determined point. Captain Duperrey is not of that opinion; and it remains to be settled whether the longitude of Talcahuana, or Valparaiso, in $71^{\circ} 33' 34''$ W., deserves the preference.

KRUSENSTERN.

St. Petersburg, January 26, 1837.

C.

TO CAPTAIN JAMES C. ROSS, COMMANDING H. B. M. SHIPS EREBUS AND TERROR.

U.S. Flag-Ship Vincennes,
New Zealand, Bay of Islands,
April 5th, 1840.

MY DEAR SIR,

I need not tell you how much I feel interested in your cruise. From the interest you took in the outfit of our expedition, I am sure you well know the interest it excites, and how much this feeling is heightened by a knowledge on my part of what you have undertaken, and have to go through. This prompts me to a desire to be useful to you if possible, and to give you my experience of the last season among the ice, whither you are bound.

Your cruise will be an arduous one, no matter how you may be enlightened on your course; but you have so much knowledge of the ice, and the manner of treating it, that it appears almost presumptuous in me to sit down to give you any hints relative to it. But, believing as I do, that the ice of the Antarctic is of a totally different character from that of the Arctic, I venture to offer you a few hints that may be useful to you in your undertaking; and although my instructions are binding upon me relative to discoveries, I am nevertheless aware that I am acting as my government would order,

if they could have anticipated the case, knowing how deeply it feels the liberal assistance and great interest evinced by all the societies and distinguished men of Great Britain, to promote and aid this, our first undertaking, in the great cause of science and usefulness; and I must add the pleasure it gives to me personally, to be able to return, though in a small degree, the great obligation I myself feel under to you, and many others, the promoters of your undertaking.

WINDS.—The winds for the first fortnight of our time, to the eastward of longitude 140° E., were from the northward and westward, light generally, accompanied occasionally with clear weather for hours, and again with dense fogs of short duration, with a low swell from the same quarter.

After passing longitude 140° E., or to the westward of it, we experienced fine weather, with south-east winds and occasional snow-squalls, lasting but ten or fifteen minutes, and a dry healthy atmosphere.

The barometer, during our stay on the coast, was always indicative of wind by its depression, and was a true guide. Its mean standing was 28-in. The temperature surprised me: we sel-

dom, if ever, had it above 30° , even in the sun at mid-day, and I do not think that three times it was found above 35° .

Gales come on very suddenly, and are always attended with snow, sleet, and thick fogs, rendering it extremely hazardous; for one must be found, when they do come, more or less surrounded with ice-islands. They sometimes last for thirty-six hours. After they set in, you may calculate that they will blow strong for at least half that time. The nearer you are to the land, the more violent they are, though not of such long duration. Fine weather usually precedes them, and we found them to happen, and the weather to be more changeable, near the full and change, although I am no believer in the lunar influences upon the weather.

CURRENTS.—During the whole of our stay along the icy coast, we found no perceptible current by the reckoning and current log. During a gale of wind I was induced to believe that some existed, from the short sea that was formed, thinking there was more than was to be expected. *Tides* on such an extent of coast there undoubtedly must be, but of little strength, or we should have perceived them.

In many of the icy bays we were stationary for a sufficient time to perceive them if they had been of any magnitude, and where the current was repeatedly tried.

The winds have their effect upon the loose drift-ice, or that which is detached from the icy barrier. Owing to a change of wind from south-east to north, with a fresh breeze, the Peacock became embayed, and the ice forced in upon her, which brought about the accident. The northerly winds are always accompanied with a heavy swell, and her escape is attributable to a rare exercise of good seamanship and perseverance. If Captain Hudson's ship had been as strong as adamant itself, he is of opinion she would have been ground to atoms by a longer exposure; her stem was abraded to within an inch and a half of the wood-ends.

There are places in which the barrier is within the floe-ice several miles. I enclose you the mean temperature during the summer months.

You will see there is but little chance of the ice melting or disappearing, as from accounts frequently takes place in the Arctic Ocean. Your time, being unlimited, will allow you to wait some days in a situation to make experiments.

I frequently found myself so closely beset that I thought it next to impossible to escape, and if the wind had not been extremely constant in its direction, I should have been shut up or much injured; as it was, I escaped with scarcely a scratch, although we took some heavy thumps.

The charts will show you the tracks and state of the ice. It was constructed as I went on, and the ice-islands laid down by carefully-kept diagrams by the officer of the deck during his watch. This I found gave me more confidence in proceeding, and facilities in case of having to return.

MAGNETIC POLE.—I consider we have approached very near to the pole. Our dip was $87^{\circ} 30'$ S., and the compasses on the ice very sluggish; this was in longitude $147^{\circ} 30'$ E., and latitude $67^{\circ} 41'$ S. Our variation, as accurately as it could be observed on the ice, we made $12^{\circ} 30'$ E. It

was difficult to get a good observation, on account of the sluggishness of our compasses. About one hundred miles to the westward, we crossed the magnetic meridian.

The pole, without giving you accurate deductions, I think my observations will place in about latitude 70° S., and longitude 140° E.

On the meridian of 140° E., you will find a small bay, partly formed by ice-islands and rocks, which I have named Piner's Bay, and I think among the rocks you may find a snug little harbour. I was driven out of the bay by a gale of wind; sounding about one and a half mile from the shore in thirty fathoms. The icebergs being aground, form good shelters; but I was too much exposed to venture to remain, and my object was to trace the land and the icy barrier, which I have done, as you will see it laid down on my chart.

We had delightful and clear weather ten days or a fortnight along the coast, with the wind at from south-east to south-south-west; the two latter points particularly. The drift-ice is in large pieces, so large as to give a ship an awkward thump; but when I found it tolerably open I have run through it to get to clear water, and in hopes of making the land, but our progress was soon stopped by the firm barrier, impenetrable, through which there is no passing.

I am of opinion that there is little movement of the ice during the season. Strong gales may change its position a trifle, but I think not materially.

The only prospect of nearing the land is through a sea well studded with large icebergs, nearly thirty or forty miles in width; and I generally found that we got nearer to the shore in those places than elsewhere. One thing I must tell you, as respects filling your water: you will sometimes find a pond of delicious water on the top of an old iceberg, frozen over, but on cutting through it you will see a supply sufficient for a navy. It will save you fuel, and discomfort and cold to you, your vessels, and their crews.

I was very fortunate in the weather the latter part of the time; and indeed altogether I was scarcely a day without some observation, (except during the gales, of which we had three, occupying about eight days,) and generally half a dozen.

My time for six weeks was passed on deck, and having all daylight, I of course had constant employment, and with the many assistants, I could make rapid progress; and you will find that no opportunity ought to be lost in this navigation, if one is to do any thing. One's ship is in constant danger, and the Vincennes, a first-class sloop of seven hundred and eighty tons, it requires all the foresight and activity one is possessed of to look-out for her.

I consider that I have had a most providential escape; and if this ship had not been enabled to "do every thing but talk," I should not have been where I now am; but she had inspired me with so much confidence, among the coral reefs last summer, that I could put full faith in her doing her duty. I must refer you to the chart, on which I have noted remarks, variations, &c.

I should have mentioned, that in 1838 and 1839, I went south in the brig Porpoise, in order to trace

Palmer's Land on its eastern side, (but too late for any trial to reach high latitudes,) and hoping that the lateness of the season would enable me to run some distance along it. I got within three miles of the coast, and saw it trending to the south-south-east about thirty miles; but it was so blocked up with ice as to render it impossible to get through. I have little doubt myself, in favourable seasons, Weddell's track may be followed, notwithstanding what the Frenchman may say, there being no land to which the ice is attached; and

that the ice in those parts changes very much, the currents being exceedingly strong, as I myself witnessed. I could not afford the time to be frozen up, as my other duties were and are paramount to passing the winter in such a situation. But you are differently situated, and I should advise you, by all means, to try to penetrate between longitude 35° and 45° W.

I am, &c.,

CHARLES WILKES,
Commanding Exploring Expedition.

D.

VALUE OF EXCHANGE ON LONDON AND THE UNITED STATES AT DIFFERENT PORTS VISITED BY THE EXPLORING SQUADRON, MADE UP TO 1842.

PORTS.	Amount realized in dollars per £100 sterling exchange on London.	Rate of Exchange on the United States.	Value of Silver Dollars.
Madeira	£100 sells for \$460	10 to 12 per cent. disc.	Par.
Rio de Janeiro . .	100 " 440	12 to 14 " "	"
Valparaiso	100 " 520	Par.	"
Lima	100 " 510	"	"
Sydney, N. S. W. .	100 " 480	10 per cent. disc.	"
California	100 " 450	12 " "	"
Sandwich Islands .	100 " 430	12 to 15 per cent. disc.	"
Manilla	100 " 450	10 " "	"
Singapore	100 " 450	10 " "	"
Cape Town	100 " 444	10 " "	"
St. Helena	100 " 444	10 " "	"

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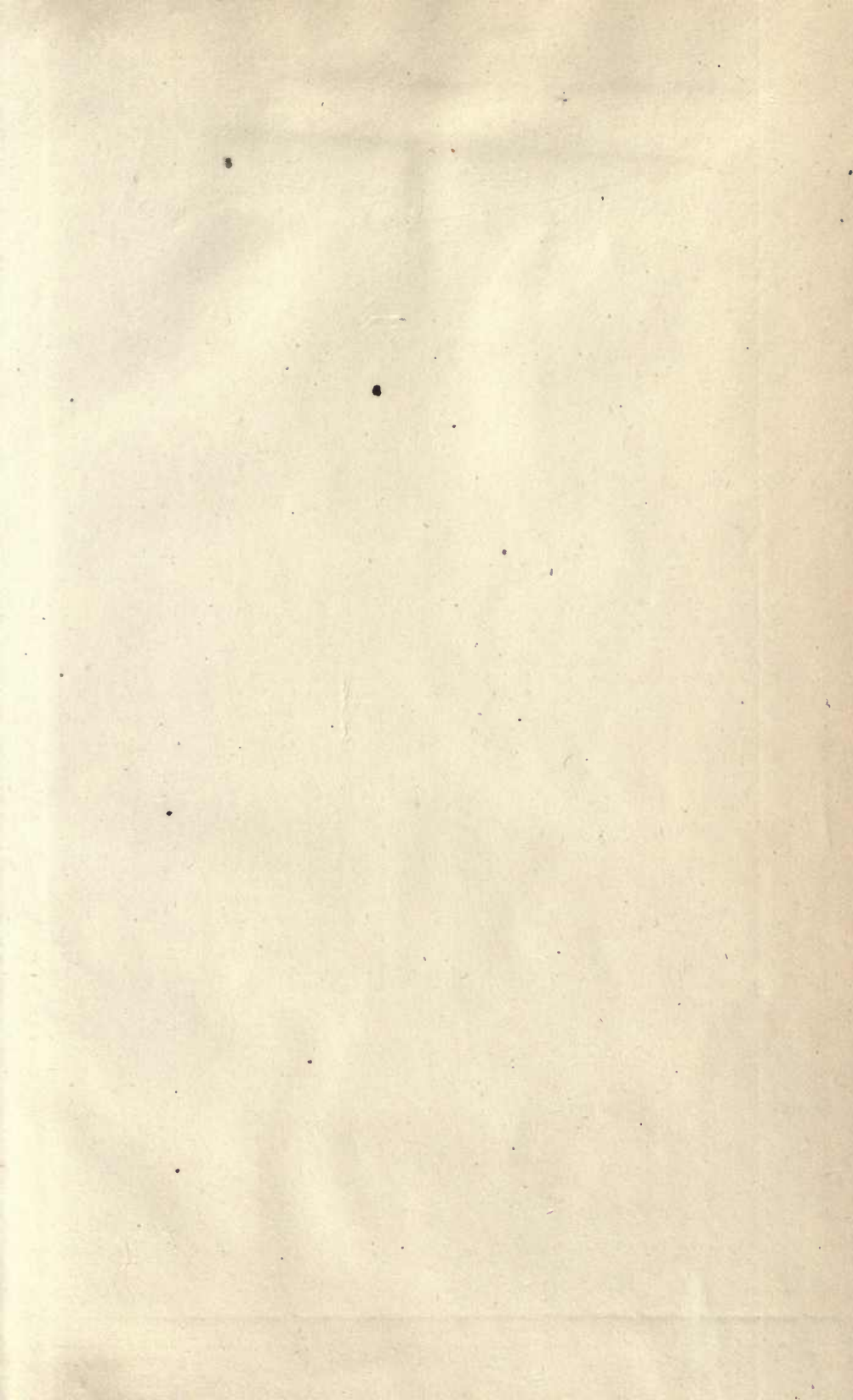
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